DOCUMENT RESUME

ED 210 476 CE 030 739

AUTHOR	Barta, Roberta Fair
TITLE	A Survey of Vocational Education Programs for the Severely Handicapped in North Dakota.
SPONS AGENCY	North Dakota State Board for Vocational Education, Bismarck. Research Coordinating Unit.
PUB DATE	Jul 81
NOTE	215p.; Master's Thesis, University of North Dakota.
EDRS PRICE	MF01/PC09 Plus Postage.
DESCRIPTORS	*Admission Criteria; Adolescents; Adults; Articulation (Education); Course Content; Curriculum; Daily Living Skills; Definitions; *Job Skills; Models; Prevocational Education; Rehabilitation Centers; *Self Care Skills; *Severe Disabilities; Sheltered Workshops; *Vocational Education; Vocational Training Centers; Young Adults
IDENTIFIERS	*North Dakota

ABSTRACT

A study was conducted to determine (1) the entry level skills that are required for admission to selected North Dakota programs for the vocational education of the severely handicapped; and (2) the articulation, if any, between nationwide prevocational training programs' exit requirements and the North Dakota programs' entry requirements. Using a survey instrument developed by Dennis E. Mithaug and others for assessing entry-level requirements of sheltered workshops, development centers, and activity centers, information was gathered from 95 programs in 29 states. The information collected showed that although there is considerable agreement between the prevocational programs nationwide regarding exit skills and North Dakota's vocational programs' entry skills, the North Dakota programs expect their students to possess more independent living skills than the prevocational programs teach. The following conclusions were reached: (1) there are few vocational training programs for the severely handicapped; (2) there is confusion among those working with the handicapped about the definition of the term "severely handicapped"; (3) a greater degree of articulation between the prevocational and the vocational training programs is needed; (4) admission criteria for vocational programs is not structured; and (5) all programs require students to have basic self-care skills. A model vocational program was proposed that would serve home-living students in a vocational center, use real work tasks, teach vocational competencies, have access to support services, and hire personnel with the proper attitudes. (KC)

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ED210476

A SURVEY OF VOCATIONAL EDUCATION PROGRAMS FOR THE SEVERELY HANDICAPPED IN NORTH DAKOTA

by

Roberta Fair Barta

Bachelor of Science, University of North Dakota, 1970

An Independent Study
Submitted to the Graduate Faculty
of the
University of North Dakota
in partial fulfillment of the requirements
for the degree of
Master of Science

Grand Forks, North Dakota
July
1981

CE 030 739

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ACKNOWLEDGMENTS

Sincere appreciation is extended to Dr. James L. Navara for his advice, encouragement, and assistance in the completion of this study. The writer is also grateful to George F. Zenk, Jr. for his continuing assistance during the development and completion of this project. The contribution of the late John C. Peterson, in the form of encouragement and the inspiration to excellence, is also deeply felt and greatly appreciated.

Sincere appreciation is extended to the State Board for Vocational Education for their support of this project and to Dr. Larry Barnhardt for his guidance.

Special thanks is extended to the North Dakota vocational programs for the severely handicapped that participated in the study.

The writer is also indebted to her husband, Keith; and her children, Chris and Jennifer, for the sacrifices they made to make this study a reality.

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CHAPTER I

INTRODUCTION

Vocational education or preparation for the world of work has been part of man's history since the beginning of time. As early as 2000-1200 B.C., the Egyptians taught their children to read and write and organized apprenticeships to teach their children a trade. ". . . compulsory education of children for the first time in history was ordered in A.D. 64. A youth as a rule attended the church school in the morning and learned a trade from his father in the afternoon." (Roberts, 1971).

The first legislation passed in the United States to assist vocational education was the Morrill Land-Grant Act of 1862 which provided for the sale of public lands to support at least one college in each state for the technical training of agricultural workers. The Smith-Hughes Act of 1917 was the first legislation passed (although several bills had been introduced previously, but failed) which provided appropriations for vocational education. Through the years additional legislation has expanded vocational offerings to include: home economics, agriculture, and trade and industry (1917); distributive education (1937); and business and office education (1963). Congress has also provided for expanded services including salaries for state directors and counselors, work experience programs, research, cooperative programs, work study programs, and curriculum development.

The Smith-Hughes Act also provided for money for the retraining of disabled soldiers who had returned from World War I. This was the first time that the needs of the handicapped were specifically addressed. In 1943, the Bardon-LaFollette Act guaranteed training to disabled workers and provided money for retraining. The Vocational Rehabilitation Amendments of 1967 provided funds totalling approximately $500 million. The Rehabilitation Act of 1973, P.L. 93-112, among other things, forbids discrimination because of a handicap (Section 504) and includes the severely handicapped for the first time.

Prior to the 1940's, few severely handicapped people survived in each generation. Modern medical advances in the 1940-50's have made survival possible for an appreciable number of these people. When residential institutions were begun in the United States in the 1860-70's, these few severely handicapped were NOT admitted. The institutions began as educational facilities, utilizing new European teaching techniques which promised to "cure" the handicapped and return them to their communities as rehabilitated citizens. Thus children with Down's syndrome, epilepsy, cerebral palsy, etc. were not admitted. When even the higher functioning handicapped could not acquire enough skills to pass as "normal," discouragement settled over these pioneers and institutions became custodial in nature and began admitting individuals functioning at much lower levels. (Birkenholz, 1977).

In the 1950's, parents of the handicapped organized to form the National Association for Retarded Citizens which pushed for beneficial legislation and established programs on a day basis for children the public schools were not serving. By the late 1950's, special education was receiving considerable legislative support; and, during the 1960's, it received even greater legal and monetary support. The Bureau of Education for the Handicapped, Project Head Start, and other similar programs have all expanded programming for the handicapped. "While educators in general have not been interested in providing services for the severely and profoundly handicapped," (Quick, Little, and Campbell, 1974) the 1970's has been a time of litigation for the rights of all handicapped individuals. (Birkenholz, 1977). With the passage of P.L. 94-142 in 1976, free appropriate, public education was mandated for all; and severely and profoundly handicapped children are being added to the public school rosters. The West Virginia Research and Training Center notes in "Understanding the Guidelines for the Rehabilitation Act of 1973 on Expanding and Improving Services to the Severely Handicapped" (1975) that the Rehabilitation Act of 1973 (P.L. 93-112) provides services to the handicapped "serving first those with the most severe handicaps."

A Sheltered Workshop Study by the U.S. Department of Labor (1977) reports that "Sheltered workshops were developed in response to a need to provide employment, training and other rehabilitation services to severely handicapped persons." This workshop allows the physically or mentally handicapped to work at his/her own capacity and be paid accordingly.

Requirements for admission to these programs may make reference to Age (16 years or older); Disability (the existence of a condition which limits employability, e.g. seizures, etc.); Self care (the ability to toilet, feed, dress, etc.); and Need (the potential client can be expected to benefit from the program provided). "Interestingly absent is reference to the fact that all sheltered workshop clients by definition are characterized by 'inability to engage in competitive employment'." (A

Study of Sheltered Workshops in North Dakota, (1978). This vagueness regarding admission requirements leads to speculation about the degree to which the sending agencies are training their clients to possess the skills needed for admission.

The Problem

The problem of this study was to identify the entry level skills which are required for admission to selected North Dakota programs for the vocational education of the severely handicapped.

Purposes of the Study

The purpose of this study was to compare the exit skills of prevocational training programs for the severely handicapped nationally and the entry level skills required for admission to 11 selected vocational programs for the severely handicapped in North Dakota. Another purpose was to propose a model of service delivery for the vocational education of the severely handicapped in North Dakota.

Need for the Study

Although vocational education for normal students has been part of the total educational program for a number of years, it is only very recently (1976) that the law has directed that schools provide a free, appropriate public education for all students, regardless of handicap. Many schools have been slow to implement programs for the handicapped and to a more serious degree ". . . educators in general have not been interested in providing services for the severely handicapped . . ." (Quick, Little, and Campbell, 1974).

There is very little written in the education or vocational education literature regarding the career education or vocational preparation of the handicapped. In the area of Learning Disability, a specific handicapping condition; Irvine, Goodman, and Mann (1978) in noting the dearth of literature in this area, were able to cite less than fifteen references to the career preparation of the LD youngster. This writer's own search found virtually no references to the severely handicapped in either the Education Index or the Resources in Vocational Education. An ERIC search did yield a number of entries which had been submitted by Vocational Rehabilitation or other similar agencies.

The above considerations suggest that a research study to identify skills required for entry into selected North Dakota facilities for the severely handicapped and to provide some articulation regarding these skills, between sending agencies and those providing the training, may be useful. This research study might provide increased efficiency in training the severely handicapped to meet specific requirements rather than general objectives which they cannot generalize to other situations.

Limitations

This study is limited by the inability of the researcher to control:

1. The complete cooperation of the Special Needs Supervisor in each state regarding the identification of vocational programs for the severely handicapped and the return of this information to the researcher.

2. The possible misinterpretation by the Special Needs Supervisor in each state that the study was designed to survey vocational programs for the severely handicapped.

3. The complete cooperation of the programs for the severely handicapped as identified by the states' Special Needs Supervisors in completing and returning the survey instruments.

4. The possible misinterpretation of items on the questionnaire by the respondents.

5. The bias on the part of respondents or their unwillingness to identify criteria that will, in fact, screen applicants out of their programs.

6. The emotional and physical state of respondents at the time the survey instrument was completed.

Definition of Terms

The following terms are defined as they pertain to this study:

1. Activity Centers. This term includes, for our study, both Day Activity Training centers which provide an opportunity for the handicapped student to receive training in independent living skills, socialization skills, and training in prevocational behavior; and Work Activity Training centers which are physically separated departments of a workshop having an identifiable program and separate supervision and records, planned exclusively to provide therapeutic activities for handicapped whose physical or mental impairment is so severe as to make their productive capacity inconsequential.

2. Entry Level Skills. Those self-help, independent living, and work-related competencies identified by the North Dakota programs for the severely handicapped as necessary for admission into those programs.

3. Handicapped. A person who is mentally retarded; hard of hearing; deaf; speech impaired; visually handicapped; seriously emotionally disturbed; orthopedically impaired; or other health impaired person, or persons with specific learning disabilities; and who by reason of the above:

* Requires special education and related services, and

- Cannot succeed in the regular vocational education program without special educational assistance; or

- Requires a modified vocational education program.

4. Prevocational Training. Programs of instruction nationwide, designed to teach entry level skills which enable the severely handicapped to progress to higher level vocational training programs.

5. Severely Handicapped. Those who because of the intensity of their physical, mental, or emotional problems, or a combination of such problems, need educational, social, psychological, and medical services beyond those which are traditionally offered by regular and special education programs, in order to maximize their full potential for useful and meaningful participation in society and for self-fulfillment.

6. Sheltered Workshop or Extended Employment. A work oriented rehabilitation facility with a controlled working environment and individual vocational goals which permit the physically or mentally handicapped person to work at his or her own capacity and be paid commensurate with his or her productivity.

7. Special Needs Supervisor. State official with responsibilities for vocational education for persons with special needs (disadvantaged and handicapped).

8. Vocational Training. Organized programs that are directly related to the preparation of individuals for paid or unpaid employment. They are designed to provide for the specific competencies needed in preparing for or progressing in a vocation.

Organization of Chapters

This study is presented in five chapters entitled: (1) Introduction, (2) Review of Literature, (3) Procedures, (4) Findings, and (5) Summary, Conclusions, and Recommendations.

Chapter I presents the problem, the purposes of the study, need for the study, limitations, definitions of terms, and the organization of the study.

Chapter II consists of a review of literature and research studies that are related to the study.

Chapter III is a report of the research methods and procedures used in obtaining and analyzing the data gathered in this study.

Chapter IV is a summary of the demographic data collected from vocational programs for the severely handicapped in the thirty three states that responded to our survey and a rank order listing of skills that they train their students to possess when they exit from their programs. Also included are rank order listings of entry level skills required for admission to selected North Dakota program for the severely handicapped.

Chapter V includes the summary, conclusions, and recommendations based on the findings presented in Chapter IV.

CHAPTER II

REVIEW OF RELATED LITERATURE

The review of related literature has been divided into seven sections which are closely related to the vocational education of the severely handicapped:

1. Overview of Current Writing in Vocational Education for the Severely Handicapped
2. Adult Education of the Handicapped
3. Preparation of Teachers of the Severely Handicapped
4. Career Education for the Severely Handicapped
5. Sheltered Workshops as an Opportunity for the Severely Handicapped
6. Mainstreaming the Severely Handicapped
7. Projects Related to the Vocational Education of the Severely Handicapped

Overview of Current Writing In Vocational Education for the Severely Handicapped

". . . It must be considered that there is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things. For the reformer has enemies in all those who profit by the old order, and only lukewarm defenders in all those who profit by the new. . ." (Machiavelli).

In some ways, the provision of vocational education opportunities for the severely handicapped has been "a new order of things" which has met with considerable opposition, but is beginning to make progress. Tindall (1976) indicates that some "formidable barriers have been surmounted." Since the Vocational Education Amendments of 1968, a great deal of effort has been expended: 1) Developing prevocational and support services for the handicapped to prepare them for vocational courses and employment; 2) Developing successful methods for teaching the handicapped; 3) Identifying the needs, characteristics, and capabilities of the handicapped; 4) Modifying negative attitudes on the parts of administrators and teachers; and 5) Persuading industry to redesign jobs to accommodate the capabilities of the handicapped.

There are, however, still several barriers which keep handicapped people from employment. They are often subtle, sometimes unintentional, and may indicate a lack of knowledge or consideration on the part of employers or teachers.

The first barrier exists in the confidentiality laws which seem to be springing up everywhere. Some information--reading levels of students, learning modalities, learning disabilities, successful instructional techniques--is necessary for teachers to develop viable educational programs for the handicapped. Researchers need to determine if the laws are protecting the handicapped or creating a barrier to employment.

The lack of materials specifically designed for the handicapped in vocational programs is a second barrier to employment. Models on quick, streamlined modification techniques are needed to enable the teacher to develop modified programs.

A third barrier is the lack of articulation between teachers and employers regarding necessary education and the modification of jobs to match the skills of the handicapped.

The lack of certification requirements for teachers in the vocational education of the handicapped results in scattered interest among vocational educators concerning the employment of handicapped students.

Finally, the legal aspects of training and employing handicapped students has centered on low age and educational levels. What is the obligation to adults? (Tindall, 1976).

Adult Education of the Handicapped

In this area of adult education, Gugerty (1976) believes "the unmet needs of the handicapped are staggering." The U.S. Department of Labor estimates that 57 percent of the nation's 15 million handicapped people are NOT employed and the majority of the rest are underemployed. Post-secondary institutions should address themselves to the educational needs of the nation's handicapped, if they are committed to serving all who can benefit from their services.

The education of the mentally retarded adult is only now beginning to receive some consideration and visibility in the literature. Long's 1973 review of literature indicated that although programs for the mentally retarded adult are relatively scarce, they will increase in numbers in the 1970s and 1980s. Elias Katz (1968) gives two significant reasons for concern with retarded adults: the large number of persons involved and the high cost of such individuals to society. He also notes that literature for the preparation of teachers of the adult retarded was almost non-existent in 1968.

Preparation of Teachers of the Severely Handicapped

Some facts from various sources in the literature indicate that vocational teachers are not well prepared to assist handicapped students. Only 3% of all vocational education teachers have completed courses on the special needs of handicapped students. Instructors often are reluctant to accept handicapped students in regular classes, even when special accommodations are not needed. (U.S.O.E., 1979) (Parrish, 1980).

There are a number of reasons for the lack of preparation of teachers to deal with severely handicapped:

1. A surplus of teachers of the mildly handicapped results in their being transferred into classrooms for the severely handicapped, in spite of their lack of training to deal with these students.

2. Most states do not have specific certification requirements for teachers of the severely handicapped.

3. There are simply not enough teachers being trained to serve the severely handicapped in the university-based training programs.

4. The lack of field-based inservice training programs for teachers already serving the severely handicapped is widespread.

"There exists a direct relationship between the level of the client's disability and the level of instructional competence required of his/her teachers: the more pronounced the disability, the more powerful and precise are the skills required of the teacher." (Wilcox, 1977).

Birkenholz (1977), in a paper tracing the history of services to the severely handicapped and describing the development of teacher preparation programs, stated, "By the turn of the century the tracking system to serve the less able and/or less fortunate was in operation." Two-year teacher training programs, which included practice teaching, were becoming associated with colleges and universities. Crucial funding for educational programs for the severely handicapped is held by the public education sector. The universities can provide an interdisciplinary and analytical orientation toward teacher-training, while agencies already serving the severely handicapped can provide practical "know-how." "A team-work approach will assure the best possible programming for severely and profoundly retarded persons--the newest population to become the responsibility of the public school." (Birkenholz, 1977).

Career Education for Severely Handicapped

The concept of lifelong learning is one that has been extensively researched as it relates to the "normal" population, but "While the term has only been recently used in discussing the needs of the severely handicapped, the basic assumptions of lifelong learning are highly pertinent for this population." (Flanagan, 1978). Career education programs are, unfortunately, available to the handicapped, and especially the severely handicapped, less often than they are to the non-handicapped. This career development needs to reflect concern for the individual in various roles and in many settings. There is considerable evidence that the handicapped should be instructed in personal and social skills as well as job-related skills, because vocational failure is often the result of the inability to get along on the job, rather than the inability to perform the work.

Phelps (1977) noted that the career education movement has caused many teachers to modify their curriculums and facilities and to prepare materials for individual students. "No longer can society afford to educate only those most easily educated and allow those who find learning difficult to drop out, be pushed out, or graduate without having established personal career goals." (Phelps, 1977).

Sydney Marland (1971) states "A fundamental purpose of education is to prepare people to live a productive and rewarding life. For far too many Americans, our schools are failing in this essential mission."

Sheltered Workshops as an Opportunity for the Severely Handicapped

Sheltered workshops were developed in response to a need to provide employment, training and other rehabilitation services to severely handicapped persons. The first workshops began in the United States over 100 years ago and were and are designed as a blend of "business and rehabilitation." Their purpose was to provide a "chance" for those considered non-competitive (or unemployable) and frequently they have developed into commercial enterprises of considerable proportion. The workshop movement has grown from 85 certified workshops in 1948 to nearly 3,000 certified workshops in 1976 serving an estimated 145,442 handicapped persons daily and more than 400,000 annually. "The key to continued development, especially in terms of the 'quality' of sheltered employment efforts appears to be locked into a combination of validity (program evaluation) as a rehabilitative facility and solvency (funding) as a business/industry. Potentially, the other main ingredient of 'people,' both in terms of professionals and clients . . . which actually defines rehabilitation (people helping people) . . . appear to be available in sufficient numbers to insure the continued existence of sheltered workshops for some time to come." (A Study of Sheltered Workshops in North Dakota, 1978).

A study of sheltered workshops in several other countries, as well as in the United States, found that "Almost without exception, sheltered workshops in the nations visited are not assigned the range and multiplicity of functions that are common in the United States." (The Role of the Sheltered Workshop in the Rehabilitation of the Severely Handicapped, 1975). Evaluation, training, and work activities are not part of the role of their workshops. Placement and preparation for competitive employment are not objectives of these workshops in most cases.

In many cases, the workshop is considered to be a place of employment on a long-term, perhaps permanent, basis. That does not mean that the clients do not receive further services, but that the chief function of the workshop is productive and remunerative work--whether through subcontracts, prime manufacturing, or the provision of contract services.

Paul C. Hayes, (1967) conducted a sheltered work experience project in Grove City, Iowa, where students with drop-out tendencies, in the 80 to 95 IQ range, and from families in the lower middle-class range were provided with basic instruction in academic and social skills and also with a job. Regular school employees--janitors, cooks, matrons, and mechanics--served as work supervisors. They worked with no more than three students at a time, gave visual demonstrations of work to be done, and reinforced constantly through praise. Testing at the end of the first year indicated that both boys and girls advanced in reading achievement; over 80 percent of the students improved their self-concept; nervous manifestations decreased; and girls were less self-conscious about their physical appearance. School records showed a tremendous improvement in school attendance; 95 percent of the group returned the next year to enter vocational programs; and pregnancies dropped below the expected rate. This might indicate that appropriate sheltered work experience has a great deal of value for special needs students.

Mainstreaming the Severely Handicapped

Mainstreaming, simply put, "is a basic belief adhered to by many educators that students with special needs should be integrated into regular classrooms with "regular" students. (Moorman, 1979).

For many years, our educational system has kept the handicapped student "somewhere else," out of sight and out of the minds of "regular" students who were often troubled in an irrational way by the presence of the handicapped learner in the classroom. Often the "normal" students resented the extra attention given by the teacher to the handicapped student and could not understand the variation in what was considered acceptable work among students.

Many of society's attempts to segregate people from one another--Indian reservations, internment camps for Japanese-Americans, jails--have resulted in a classic pattern of neglect, isolation, rejection, and ultimate dehumanization of the persons on whose behalf society was supposedly acting. This has also been true, to a lesser degree, of our approach to handicapped children within public education. "On this basis alone, the human concern for human beings, we must attempt to have handicapped children in sight, in mind, and in settings where they will receive the fullest measure of our educational resources." (Martin, 1974).

There are some problems to consider in the discussion regarding mainstreaming the handicapped student. First, the fears, attitudes, and prejudices of the schoolmates of these handicapped students may cause them to reject or be unkind to them. Even the adults in these settings are not immune to these emotional feelings. Martin (1974) says, "There must be massive efforts . . . not just to instruct the regular classroom teachers in the pedagogy of special education, but to share in the feelings, to understand their fears, to provide them with assistance and materials, and, in short, to assure their success."

Cantrell and Cantrell (1976) investigated the effects of a support teacher program in maintaining exceptional children within the regular school program. Program effectiveness was evaluated in terms of achievement score changes and frequency of referrals for traditional services.

The results indicated that regular classroom teachers who have access to resource personnel can effect significant achievement gains for students at all levels of IQ functioning. These results lend credence to current concerns for individualization of instruction in regular classrooms and provide some of the first empirical support for the concept of mainstreaming.

P.L. 94-142 has led to a number of changes in the procedures for educating handicapped children. This law calls for meeting the educational needs of all exceptional children, regardless of the severity of their handicap; the preparation of individual education plans (IEPs) for each child; and parent involvement in the planning process. It also requires that handicapped be educated in the least restrictive environment (most normal environment) possible. This, in many cases, means mainstreaming. A workshop conducted in Erie County, New York, which gave educators a chance to work with handicapped children, and to air their feelings, as well as to receive instruction and participate in role playing, etc. was an effort to help teachers comply with some of the requirements of P.L. 94-142. "A consistent reaction was that workshops of this nature are beneficial in assisting participants, not only in their everyday interaction with exceptional children who may be mainstreamed, but also with the children in their regular classes who exhibit various types of learning problems." (Baum and Frazita, 1979).

An investigation entitled "Mainstreaming: The Effect on Regular Teacher Training Programs," which was conducted in 1979 indicated that teacher training institutions have made some adjustments in their programming to include special education technique courses for the nonspecialist. However, widespread changes are not in evidence. (Byford, 1979).

Projects Related to the Vocational Education of the Severely Handicapped

A variety of projects show that there is work being done to address the needs of the severely handicapped, but not as much as is necessary to thoroughly explore the subject.

A project conducted in Georgia in 1966 was designed to assist public schools in meeting some of the major rehabilitation needs of the MR pupils through a coordinated program of services provided by special education and vocational rehabilitation. Some conclusions drawn were: 1) Length of time in the cooperative program was significant in relation to job placement, 2) The pupil's IQ was NOT useful in predicting successful employment, and 3) On-the-job training appeared to be a practical approach. (Vocational Rehabilitation for Mentally Retarded Pupil-Clients, 1966).

Project PEP (Program Evaluation and Planning) which was conducted in 1977 was designed to help handicapped students, ages 14-21, make the transition from secondary to vocational, technical, and adult education (VTAE) schools in Wisconsin. The purpose was to identify handicapped students and their vocational needs for 1977-82. Teachers surveyed thought that 65% of the current handicapped in Wisconsin's secondary schools would best be served by continuing their educations in a VTAE school. VTAE teachers need to be alerted to multi-sensory teaching techniques (auditory, visual, and tactual) that need to be incorporated into their instructional packages for the handicapped. Proficiency in providing vocational education for the handicapped may be obtained by teachers and administrators through inservice training, college study, and by the actual experience of teaching the handicapped. (Tindall, 1977).

Project VOTAP (Vocational Training and Placement of the Severely Handicapped) was designed to determine: 1) Potential vocations for severely handicapped youths and adults, 2) What vocational training programs are available for the severely handicapped, 3) Whether effective job placement programs exist, and 4) What research and development activities might contribute to improved career/vocational opportunities. "Supported by the Vocational Education Amendments of 1968 and 1976, a number of innovative and high-quality vocational programs for the handicapped are now operating in local school districts and other agencies. Although progress is being made with those classified as handicapped, more attention needs to be focused on the severely handicapped." (Cook and Kaplan, 1977).

A survey of 650 (of a potential 759) severely disabled in Iowa, conducted to gain information for planning future state rehabilitation programs, drew the following conclusions:

1. General physical condition is the major problem facing the severely disabled concerning employment. Compounding this difficulty is a lack of skills required for performance and a lack of necessary transportation to get to and from a job.

2. Acquisition of manual skills is seen as a first priority of services for the severely disabled. Since poor physical condition tends to be the major problem, physical restoration services would also warrant consideration. There is also a need for students to be trained in job seeking skills and selective placement assistance.

3. Additional training would increase the employability of the severely disabled persons, and most would participate if it were available.

4. Vocational evaluations would clarify the employability status of those who feel they are not employable.

5. Positive attitudes toward employment were evident among the severely disabled.

6. There is evidence that more potential for employment exists in the severely disabled population than has been evident in the past. The extent to which this potential may be profitable to business and industry has yet to be determined. (Porteus and Hullinger, 1975).

Summary

This chapter reviewed related literature that is closely related to the following aspects of vocational education for the severely handicapped: 1) Overview of current writing in vocational education for the severely handicapped, 2) Adult education of the handicapped, 3) Preparation of teachers of the severely handicapped, 4) Career education for the severely handicapped, 5) Sheltered workshops as a service to the severely handicapped, 6) Mainstreaming the severely handicapped, and 7) Projects.

The various sources cited in this chapter describe what has been done in the realm of vocational education for the severely handicapped. It seems apparent that there is much research yet to be done to thoroughly delve into this broad area. Cook and Kaplan (1977) sum it up succinctly with their statement, "Although progress is being made with those classified as handicapped, more attention needs to be focused on the severely handicapped."

The establishment of the Association for the Severely Handicapped and the publication of its journal (The Journal of the Association for the Severely Handicapped) may provide a forum for the discussion of subjects regarding the vocational education of severely handicapped.

CHAPTER III

PROCEDURES

The problem of this study was to identify the entry level skills which are required for admission to selected North Dakota programs for the vocational education of the severely handicapped. The procedures followed in conducting this study are discussed in the following sections:

1. Preliminary Procedures
2. Selection of Participants
3. Selection of Research Instrument
4. Collection of Data
5. Analysis of Data

Preliminary Procedures

The State Board for Vocational Education was interested in determining if there were prevocational training programs for the severely handicapped; where they were located and the specific training objectives being taught. The intent was to determine if there was a relationship between these prevocational training objectives and the entry level skills required for admission to selected vocational programs for the severely handicapped in North Dakota. The end product requested by the State Board was a rank order of entry skills for these programs so that the prevocational training programs sending students to these facilities could train them to possess those skills.

This interest resulted in the employment of a graduate research assistant and the study was initiated in late August, 1980. The following sources were used to identify relevant literature: Educational Resource Information Center--ERIC, Business Education Index, the Education Index, Reader's Guide to Periodical Literature, Resources in Vocational Educaion, and Dissertation Abstracts. An effort was made to identify vocational programs for the severely handicapped, to find models of service delivery to the severely handicapped, the setting in which programs were provided for the severely handicapped, the kinds of services provided, and the programs or places to which students exited after completing the training program.

Selection of Participants

The North Dakota Special Needs Supervisor provided a list of the names and addresses of the official in each state with responsibilities for vocational education for persons with special needs (disadvantaged and handicapped) as identified by the Department of Education. A letter was drafted in an effort to get each of these Special Needs officials to identify prevocational programs for the severely handicapped, funded by Vocational Education Special Needs monies in their respective states. This letter was field tested on the Special Needs Supervisors of North Dakota, Minnesota, and Montana to see if it did, in fact, explain our purposes and the kinds of information we wanted from the Special Needs Supervisors. After being assured that the letter would elicit the information desired, letters were mailed to the Special Needs Supervisor in each of the fifty states, the District of Columbia, Guam, Puerto Rico, the Virgin Islands, and American Samoa. These individuals, in turn, provided the names and addresses of programs in their states that had prevocational programs for the severely handicapped. Several of the programs identified were specifically for serving the disadvantaged, and they were not surveyed.

The selection of North Dakota vocational programs for the severely handicapped was made with the assistance of a listing made available to the researcher by the State Health Department that identified the names and services provided by facilities in North Dakota. Chosen for this study were those locations that provided one or more of the following programs: activity centers, vocational training, and sheltered employment training. Excluded from the study were those facilities that provided only vocational evaluation or residential training. The facilities that agreed to participate in the study were:

Upper Missouri ARC Opportunity Center - Williston
Minot Vocational Adjustment Workshop - Minot
Lake Region Activity Center - Devils Lake
Agassiz Enterprises - Grand Forks
Evaluation and Training Center - Fargo
Svee Rehabilitation Home - Fargo
Developmental Work Activity Center - Fargo
Mainstream, Inc. - Fessenden
Open Door, Inc. - Valley City
Alpha, Inc. - Jamestown
Pride Industries - Bismarck

A complete listing of the name, address, contact person, and kinds of programs at each of these facilities is given in Appendix I, page I-1.

Selection of Research Instrument

During the process of reviewing related literature, an instrument developed by Dennis E. Mithaug and others for assessing entry-level requirements of sheltered workshops in the Seattle area was found. After correspondence with the author, validity and reliability data was obtained and this instrument was chosen for the study.

The Mithaug instrument was developed in a pilot study of sheltered workshops, developmental centers, and activity centers in five northwestern states. Replication of the survey to identify sheltered workshop requirements was completed in Kansas. Spearman's rank order correlations and Pearson's product moment correlations for Kansas-vs.-Northwest sample, Kansas-vs.-combined sample, and Northwest-vs.-combined sample were all significant from beyond the .001 level.

FIGURE 1

CORRELATIONS FOR CRITERION CATEGORY RANKS
AND PROPORTIONS IN THREE COMPARISONS

	Spearmans's r	Pearson's r
Kansas-Northwest	.77	.83
Kansas-Combined	.88	.86
Northwest-Combined	.95	.92

This lends support to the notion that there are agreed-upon entry requirements for sheltered employment that are reliable across states and regions.

In an effort to document the validity of Mithaug's survey instrument, a study investigated the correspondence between what supervisors say is important for entry (the basis of the instrument) and the actual competencies of workshop clients. The results indicated that workshop clients had those skills specified in the assessment as being important for entry into sheltered employment. A second study used this empirically derived assessment instrument, the Prevocational Assessment and Curriculum Guide, to assess the competencies of 179 profoundly, severely, and moderately retarded persons who were unemployed. The results indicated that while the moderately retarded group generally scored higher than the severely retarded, who, in turn, scored higher than the profoundly retarded group, all were well below the workshop expectation for entry. The assessment categories showing the greatest deficits across all three diagnostic groups were: communication skills, independence, behavior, and grooming/eating skills. These findings suggest that much training will be necessary to prepare severely handicapped persons for sheltered employment.

The questionnaire asked respondents to place a check mark next to prestructured responses in order to identify either exit skills (prevocational programs, nationwide) or entry skills (North Dakota vocational programs). There are two forms of the Mithaug questionnaire: the original instrument which is very comprehensive and which was administered to the selected North Dakota programs; and a 2-page version that was item-analyzed to be a representative sample of the longer form and which was mailed to the prevocational programs nationwide. A pilot test of the comprehensive questionnaire was conducted with Agassiz Enterprises in Grand Forks in November, 1980. Revisions and clarifications of the instructions were made. A data sheet was also constructed requesting specific demographic data from each of the programs that received the survey.

Collection of Data

On September 22, 1980, 55 envelopes were mailed to the Special Needs Supervisor in each of the fifty states, the District of Columbia, Guam, Puerto Rico, the Virgin Islands, and American Samoa. Each contained a letter (See Appendix A, page A-1) and a stamped return envelope. The Special Needs Supervisors were asked to identify prevocational programs in their states for the severely handicapped which were funded by Vocational Education/Special Needs monies. On October 20, 1980, 27 follow-up letters (See Appendix B, page B-1) were mailed to the states whose Supervisors had not yet replied. On November 12, a second follow-up letter (See Appendix C, page C-1) was sent to 22 Special Needs

Supervisors who still had not yet identified the programs in their states.

As responses from the Special Needs Directors were received, envelopes were mailed to the programs identified. Each contained a cover letter (See Appendix D, page D-1), a short form Mithaug questionnaire (See Appendix E, page E-1), a data sheet (See Appendix F, page F-1), a separate sheet (See Appendix G, page G-1) instructing them to return the questionnaires uncompleted if their program did not or had not utilized Vocational Education/Special Needs monies, and a stamped return envelope.

When the first responses came back from the programs, it became apparent that there would be very little data if only programs utilizing Vocational Education/Special Needs monies completed the questionnaires. To remedy the situation, a second instruction sheet (See Appendix H, page H-1) was constructed and mailed to all identified programs asking them to note at the bottom of the data sheet if their program received no Vocational Education/Special Needs monies; but to complete the questionnaires, regardless.

After the first mailings to the programs nationwide were completed, the initial contacts were made with the programs in North Dakota, either in person or by telephone. The purpose of the study was explained in some detail and the contact person was assured that every effort would be made to assist them in filling out the long surveys, if they so desired.

On November 20, 1980, envelopes were mailed to the eleven North Dakota facilities chosen for the study. They contained a cover letter, (See Appendix J, page J-1), a long form Mithaug questionnaire (See

Appendix K, page K-1), an instruction sheet designed especially for the programs each facility offers (See Appendix L, page L-1, instructions for facilities with only activity centers; Appendix M, page M-1, instructions for facilities with vocational training and sheltered employment; Appendix N, page N-1, instructions for facilities with only vocational training programs; and Appendix O, page O-1, instructions for facilities with all three kinds of programs: activity centers, vocational training programs, and sheltered employment), a data sheet (See Appendix F, page F-1), and a return envelope.

Follow-ups were made by telephone as necessary until all the surveys were returned. The last questionnaire was received March 23, 1981.

Analysis of Data

The demographic data from all the programs that responded were keypunched on 80 column IBM computer cards. The Statistical Package for the Social Sciences (SPSS) was used to compute frequency distributions of the number of programs in each state, the ages of students served, the locations of programs, the types of services offered, and the placement options after students have completed the program. This information was computed both for all programs serving the handicapped that responded, and for the programs identified as serving the severely handicapped. A listing of additional services and equipment provided by the various programs was compiled by hand.

The SPSS program was also used to compute the number of programs that identified each skill as required, either for exit from a prevocational program nationwide, or for entry into one of North Dakota's vocational programs for the severely handicapped.

Rank orders of these skills were derived from the frequency distributions for:

1. The prevocational training programs nationwide
2. The North Dakota activity center programs
3. The North Dakota vocational training programs
4. The North Dakota sheltered employment training programs
5. A composite of all the North Dakota programs that participated in the study.

The data as presented in Chapter IV are given in table format with frequency distributions and percentages indicated. Percentages of the respondents are rounded to the nearest whole percentage for reporting purposes.

CHAPTER IV

FINDINGS

The purpose of this chapter is to present the data obtained from the survey of prevocational programs for the severely handicapped nationwide and the survey of selected vocational programs for the severely handicapped in North Dakota. The findings are presented under the following headings: 1) Demographic Data (All Programs Responding), 2) Demographic Data (Programs for Severely Handicapped), 3) Exit Skills of Prevocational Programs Nationwide, 4) Entry Skills of North Dakota Vocational Programs. This section is further divided into the following categories: A) North Dakota Activity Centers, B) North Dakota Vocational Training Programs, C) North Dakota Sheltered Employment Training Programs, and D) Composite of All North Dakota Programs Participating in the Study.

Demographic Data (All Programs Responding)

Of the 55 Special Needs Supervisors contacted, 33 or 60% responded to the request by sending the names of programs for the severely handicapped in their state or by providing other information regarding programs for the handicapped. Of the 170 surveys sent to the programs thus identified in 33 states, 118 or 69.4% responded in some way. Figure 2 shows that there were a total of 95 programs for the handicapped that sent usable data. Figure 3 shows the demographic data provided by the 95 programs that responded with this information.

FIGURE 2

PROGRAMS FOR THE HANDICAPPED IN THE RESPONDING STATES

State	Number of Programs	State	Number of Programs
Arizona	9	New Hampshire	2
Arkansas	2	New Jersey	4
Colorado	1	New Mexico	8
Delaware	7	New York	10
District of Columbia	0	North Dakota	3
		Ohio	0
Florida	1	Oklahoma	2
Iowa	1	Pennsylvania	3
Kansas	4	Puerto Rico	1
Kentucky	1	Rhode Island	1
Louisiana	0	South Carolina	0
Massachusetts	4	South Dakota	3
Minnesota	1	Tennessee	1
Mississippi	4	Utah	8
Missouri	1	West Virginia	2
Montana	8	Wyoming	1
Nebraska	2	American Samoa	1

Of the 33 states that provided data, 29 states have 95 programs for the handicapped.

The programs were instructed to check all the items that apply in each of the categories so the totals in the categories will, in most cases, exceed 95, the total number of categories.

Age. In this category, 81 (85.1%) of the 95 programs responding served students in the 16-22 years age bracket. Forty-seven (48.9%) of the programs served students aged 12-16 years, and 33 (34%) of the programs served students over the age of 22. (See Figure 3).

Location. The program was located in a variety of settings, ranging from public schools in 48 (51.1%) cases to junior colleges which hosted 3 (3.2%) of the programs for the handicapped. Vocational schools were listed by 24 (25.5%) of the 95 respondents, sheltered workshops by 16 (17%), state institutions by 15 (14.9%), and private schools by 7 (7.4%)

as the location of the program. Other locations furnished by the respondents included:

State psychiatric hospital
Rehabilitation agency
Special School for SMH & TMH
State university
Vo-Tech College
"Segregated placement for handicapped"
Private non-profit work
Activity center
Intermediate school district
Industrial complex
Community based business (See Figure 3).

Services. Of the 95 programs, 75 (78.7%) provided prevocational training, 74 (77.7%) offered vocational training, and 70 (73.4%) provided evaluation as a service to their students. Fifty-six (59.6%) offered career awareness activities while only 11 (11.7%) listed research. Twenty of the programs listed different kinds of special equipment, including:

Braille embossing computer terminal
Low vision aids
Reading machines
Clerical station with filing tubs for physically handicapped
Tool technician's work station
Adaptive lab-shop apparatus--table and radial arm saws
VIEWS program (Vocational Information & Evaluation Work Samples)
Biofeedback system
VTR system
COATS (Comprehensive Occupational Assessment and Training System)

Other services were listed by 18 programs, including:

Paraprofessional assistance
Interpreters for deaf and refugees
Notetakers
Tutors
Readers
Writers
Reading and job math
Academic remediation
Community home program
Adult daily living skills
Leisure time training

Speech therapy
Occupational therapy
Physical therapy
Adaptive physical education
Psychologist
Work adjustment
Extended employment
Medical restoration (See Figure 3).

Placement. The respondents indicated that 81 (85.1%) of the 95 programs placed at least some of their students in Competitive Employment upon completion of the program. Sixty (62.8%) indicated that their students were placed in Part-time Employment and both Sheltered Employment and Further Vocational Training were noted by 59 (61.7%) respondents. Less frequently listed were Sheltered Workshops by 54 (56.4%), Unemployed by 43 (45.7%) and Activity Center-Adult Day Care Center by 26 (26.6%) respondents. The programs furnished other placement options, including:

Vocational Rehabilitation or Developmental Disability
Public schools
Community, independent, or transitional living
Group homes
Skilled training
University
Trade and Vocational Institute
Retirement
Nursing homes
Military
Unpaid household workers (See Figure 3).

FIGURE 3

Vocational Education Programs for the Handicapped

33 States Identified 95 Programs for the Handicapped

Program Located In

48	Public School
7	Private School
16	Sheltered Workshop
24	Vocational School
3	Junior College
15	State Institution
15	Other: Rehab. Agency; State Psych. Hosp.; Special School for SMH, TMH; Montana State U; Voc-Tech College; segregated placement for handicapped; private non-profit work activity center; community based business; interim school district; industrial complex

Placement

54	Sheltered Workshops
59	Sheltered Employment
60	Part-time Employment
81	Competitive Employment
43	Unemployed
26	Activity Center-Adult Day Care Center
59	Further Vocational Training
17	Other: Voc. Rehab. or DD; military; public schools; community living; independent living; transitional living; university; skilled training; retirement; TVI; unpaid household workers; nursing home; group home

Age of Students

47	12-16 years
81	16-22 years
33	Over 22 years

Types of Services Offered

70	Evaluation
75	Prevocational Training
56	Career Awareness
74	Vocational Training
11	Research
20	Special Equipment: Braille embossing computer terminal; reading machines; clerical station with filing tubs for physically handicapped; tool technician work station; VIEWS program; biofeedback system; VTR system; low vision aids; adaptive lab-shop apparatus; COATS system; saws, table and radial arm
18	Other: Paraprofessional assistance; community home program; interpreters for deaf and refugees; reading and job math; academic remediation; adult daily living skill training; leisure time training; resident work program; OT; PT; Speech; Psychologist; work adjustment; Adaptive PE; notetakers; tutors; readers; writers; medical restoration

Demographic Data
(Programs for Severely Handicapped)

Of the 95 programs that returned demographic data, 51 were determined to be serving the severely handicapped, although they may also serve those handicapped to a lesser degree. This judgment was made on the basis of where the program was located, to where the students exited upon completion of the program, and other data the program may have included with the questionnaire. Of this number, 49 of the programs completed the surveys. Figure 4 shows that there were 23 states that had a total of 51 programs for the severely handicapped.

FIGURE 4

PROGRAMS FOR THE SEVERELY HANDICAPPED
IN THE RESPONDING STATES

State	Number of Programs	State	Number of Programs
Arizona	3	New Hampshire	1
Arkansas	2	New Jersey	3
Colorado	0	New Mexico	6
Delaware	4	New York	4
District of Columbia	0	North Dakota	3
		Ohio	0
Florida	1	Oklahoma	2
Iowa	1	Pennsylvania	1
Kansas	0	Puerto Rico	0
Kentucky	0	Rhode Island	0
Louisiana	0	South Carolina	0
Massachusetts	1	South Dakota	2
Minnesota	1	Tennessee	0
Mississippi	1	Utah	4
Missouri	1	West Virginia	1
Montana	5	Wyoming	1
Nebraska	1	American Samoa	1

Figure 5 shows the demographic data provided by the programs that serve the severely handicapped. Again, the programs were instructed to check all the items that apply in each of the categories, so the totals in the categories will, in most cases, exceed 49, the total number of programs.

Age. In this category, 44 (86.2%) of the 51 programs responding served students in the 16-22 years age bracket. Twenty-four (47%) of the programs served students aged 12-16 years, and 20 (39.2%) of the programs served students over the age of 22. (See Figure 5).

Location. The programs for the severely handicapped were located in a variety of settings, ranging from public schools in 20 (39.2%) cases to junior colleges which hosted 1 (1.9%) program. Twelve (23.5%) of the programs were located in Sheltered Workshops and Junior Colleges, 5 (9.8%) were located in Vocational Schools, and 2 (3.9%) were located in Private Schools. Other locations furnished by the respondents were:

Segregated placement for handicapped
Rehabilitation agency
Special School for SMH & TMH
State university
Private non-profit work activity center
Interim school district
Community based business
Industrial complex (See Figure 5).

Services. Of the 51 programs, 42 (82.3%) provided prevocational training, 41 (80.3%) offered vocational training, and 38 (74.5%) listed evaluation as one of their services to their students. Thirty (58.8%) offered career awareness activities while only 5 (9.8%) conduct any research. Twelve of the programs listed different kinds of special equipment, including:

Biofeedback system
VTR system
Low vision aids
Adaptive lab-shop apparatus--table and radial arm saws
COATS system
Wheelchair adaptation

Other services were listed by 11 programs, including:

Paraprofessional assistance
Adult daily living skill training
Leisure time training

Resident work program
Speech
Occupational therapy
Physical therapy
Psychologist
Adaptive physical education
Work adjustment
Extended employment
Medical restoration
Job placement (See Figure 5).

Placement. The responding programs indicated that 42 (82.3%) of the 51 placed at least some of their students in Competitive Employment upon completion of the program. Forty (78.4%) indicated that their graduates were placed in Sheltered Employment and both Sheltered Workshops and Part-time Employment were noted by 34 (66.6%). Further Vocational Training was identified as a placement option by 32 (62.7%) programs and less frequently listed were Unemployed, noted by 28 (54.9%) programs and Activity Center-Adult Day Care Center, given by 21 (41.1%) programs. Twelve respondents furnished other placement situations, including:

Public schools
Community living
Independent living
Trade and Vocational Institute
University
Skilled training
Retirement
Unpaid household workers
Nursing homes
Group homes
Intermediate care facility (See Figure 5).

FIGURE 5

Vocational Education Programs for the SEVERELY Handicapped

23 States Identified 51 Programs for the Severely Handicapped

Program Located In

20	Public School
2	Private School
12	Sheltered Workshop
5	Vocational School
1	Junior College
12	State Institution
11	Other: Rehab. Agency; Special School for SMH, TMH; Montana State U; segregated placement for handicapped; private non-profit work activity center; interim school district; community based business; industrial complex

Placement

34	Sheltered Workshops
40	Sheltered Employment
34	Part-time Employment
42	Competitive Employment
28	Unemployed
21	Activity Center-Adult Day Care Center
32	Further Vocational Training
12	Other: Public schools; community living; independent living; transitional living; TVI; university; skilled training; retirement; unpaid household workers; nursing home; group home; intermediate care facility

Age of Students

24	12-16 years
44	16-22 years
20	Over 22 years

Types of Services Offered

38	Evaluation
42	Prevocational Training
30	Career Awareness
41	Vocational Training
5	Research
12	Special Equipment: Biofeedback system; VTR system, low vision aids; adaptive lab-shop apparatus; COATS system; saws, radial arm and table; wheelchair adaptation
11	Other: Paraprofessional assistance; adult daily living skill training; leisure time training; resident work program; speech; OT; PT; Psychologist; Adaptive PE; work adjustment; extended employment; medical restoration; job placement

Exit Skills of Prevocational Programs Nationwide

Of the 95 programs in 29 states that returned demographic data, 51 programs in 23 states were determined to be serving the severely handicapped. Of these 51, 49 of the programs completed the questionnaires. The following narrative will discuss the items identified on the short form Mithaug instrument as required for exit from the prevocational programs nationwide, as noted by more than 50 percent of the programs that responded. Table 1 shows the skills identified by 89 percent or more of the programs responding. Percentages in tables 1-25 are reported to the nearest whole percent.

TABLE 1

EXIT SKILLS IDENTIFIED BY 93 TO 89 PERCENT OF
49 PREVOCATIONAL PROGRAMS NATIONWIDE

Skill	Number of Respondents	Percentage
Communicate basic needs expressively by means of: Verbal expression	44	93%
Learn new tasks when supervisor explains by: Modeling	43	91%
Maintain proper grooming by: Dressing appropriately for work	43	
Maintain personal hygiene by:		
Keeping teeth clean	42	89%
Using deodorant	42	

The single most important skill, as identified by 44 (93%) of the respondents, was the ability to communicate basic needs by means of verbal expression. Forty-three (91%) programs required their students to be able to learn new tasks when explained by modeling and to maintain proper grooming by dressing appropriately for work. Maintaining personal hygiene by keeping teeth clean and using deodorant was identified by 42 (89%) of the respondents.

TABLE 2

EXIT SKILLS IDENTIFIED BY 87 PERCENT OF 49 PREVOCATIONAL PROGRAMS NATIONWIDE

Skill	Number of Respondents	Percentage
Work continuously at job station for: 1-2 hour periods	41	87%
Want to work for:		
Money	41	
Sense of accomplishment	41	
Understand work routine by: Not displaying disruptive behavior during routine program changes	41	
Continue working without disruption when: Stranger is observing	41	
Respond appropriately to safety signals given: Verbally	41	
Initiate contact with supervisor when he: Feels too sick or tired to continue working	41	
Maintain proper grooming by: Cleaning self after using restrocm	41	
Maintain personal hygiene by:		
Keeping hair combed	41	
Keeping nails clean	41	

Forty-one (87%) of the programs require their students to work continuously for 1-2 hour periods, to want to work for money and a sense of accomplishment, and to understand the work routine by not displaying disruptive behavior during routine program changes. Also cited by 41 of the respondents were the ability to continue work without disruption when a stranger is observing, to respond appropriately to safety signals given verbally, and to initiate contact with the supervisor when he feels too sick or tired to continue working. Some grooming and hygiene skills noted by this group were cleaning self after using restroom, keeping hair combed, and keeping nails clean.

TABLE 3

EXIT SKILLS IDENTIFIED BY 85 PERCENT OF 49 PREVOCATIONAL PROGRAMS NATIONWIDE

Skill	Number of Respondents	Percentage
Move safely about shop by: Identifying and avoiding dangerous areas	40	
Communicate basic needs receptively by means of: Verbal expression	40	
Initiate contact with supervisor when he:		
Cannot do job	40	
Runs out of materials to do job	40	85%
Finishes job	40	
Maintain proper grooming by:		
Dressing appropriately after using restroom	40	
Cleaning self before coming to work	40	
Cleaning self after eating lunch	40	
Maintain personal hygiene by: Shaving regularly	40	

The ability to move safely about the shop by identifying and avoiding dangerous areas, and to communicate basic needs receptively by means of verbal expression were identified by 40 (85%) of the programs filling out the questionnaires. These programs also require their students to initiate contact with the supervisor when they cannot do the job, run out of materials to do the job, and when they finish the job. Grooming skills noted by this group were: dressing appropriately after using the restroom, cleaning self before coming to work and after lunch, and shaving regularly.

Table 4 reveals that 39 (83%) of the programs require their students to move safely about the shop by walking from place to place and to work alone without disruptions for 15-minute periods with no contacts from the supervisor. These same 39 expect the student to continue work without disruption when the supervisor is observing while 38 (81%) require that the student continue to work without disruption when a fellow worker is observing. Thirty-eight also cited the ability to not leave the job station inappropriately more than 1-2 times per day and to communicate basic needs expressively by means of gestures. Initiating contact with supervisor when he needs a drink of water or to go to the restroom or when he makes a mistake and eating appropriately at lunch were noted by this group.

TABLE 4

EXIT SKILLS IDENTIFIED BY 83 TO 79 PERCENT OF 49 PREVOCATIONAL PROGRAMS NATIONWIDE

Skill	Number of Respondents	Percentage
Move safely about shop by: Walking from place to place	39	
Continue to work without disruption when: Supervisor is observing	39	83%
Work alone without disruptions for: A 15-minute period with no contacts from supervisor	39	
Not leave job station inappropriately during work period more than: 1-2 times per day	38	
Continue to work without disruption when: Fellow worker is observing	38	
Communicates basic needs expressively by means of: Gestures	38	81%
Initiate contact with supervisor when he:		
Needs a drink of water or to go to restroom	38	
Makes a mistake on the job	38	
Maintain proper grooming by: Eating food appropriately at lunch	38	
Move safely about shop by: Wearing safe work clothing	37	
Complete repetitive tasks: Involving 1 step at: 95% accuracy	37	79%
Eat lunch independently with no assistance in: Putting food container away	37	

Table 4 also shows that 37 (79%) of the programs responding require their students to wear safe work clothing, complete 1-step repetitive tasks with 95% accuracy, and to eat lunch independently with no assistance in putting the food container away.

TABLE 5

EXIT SKILLS IDENTIFIED BY 77 PERCENT OF 49 PREVOCATIONAL PROGRAMS NATIONWIDE

Skill	Number of Respondents	Percentage
Come to work on an average of 5 times per week	36	
Work in group situation and increase production: When supervisor asks to complete work by specific time	36	
Work alone without disruptions for: A 30-minute period with: 1-2 contacts from supervisor	36	
Respond appropriately to safety signals given: Through signs	36	77%
Maintain proper grooming by: Displaying proper table manners at lunch	36	
Be able to eat lunch independently with no assistance in:		
Getting lunch sack or container	36	
Getting food out of container	36	
Take care of toileting needs independently with: No accicents per month	36	

Table 5 lists several specific worker behaviors required by 36 (77%) of the programs responding. Among these are the ability to come to work 5 times per week, to increase production in a group situation when the supervisor asks them to have the work done by a specific time, and to work alone for 30-minute periods without disruption with 1-2 contacts from the supervisor. The student should also respond appropriately to safety signals in the form of signs. This group also noted several independent living skills that they require of the students: displaying proper table manners, eating lunch independently with no help in getting the lunch sack or container or in getting the food out of the container, and taking care of toileting needs with no accidents per month.

TABLE 6

EXIT SKILLS IDENTIFIED BY 74 TO 72 PERCENT OF
49 PREVOCATIONAL PROGRAMS NATIONWIDE

Skill	Number of Respondents	Percentage
Work in a group situation and increase production: When supervisor asks to work faster	35	74%
Does not display or engage in: Major disruptive behavior more than: 1-2 times per week	34	
Work alone and increase production: When supervisor asks him to work faster	34	
Communicate basic needs receptively by means of:		
Signs	34	72%
Gestures	34	
Respond appropriately to social contacts on: 1 out of every 2 occasions	34	

Table 6 reveals that 35 (74%) of the respondents expect their students to increase production in a group situation when the supervisor asks them to work faster while 34 (72%) require their students to work alone and increase production when asked to by the supervisor. Thirty-four (74%) also tolerate major disruptive behavior no more than 1-2 times per week, require that their students be able to communicate basic needs receptively either by means of signs or gestures, and that they respond appropriately to social contacts at least 1 out of every 2 occasions.

Table 7 indicates that 33 (70%) of the programs responding require their students to work at the job station with no more than 1-2 work disruptions per day, to respond appropriately to safety signals given through signs, and to eat lunch independently with no assistance in pouring liquid into cup or glass or in putting food back into container. Thirty-two (68%) of the respondents tolerate minor disruptive behavior no more than 1-2 times per week, and expect their students to increase production in a group situation when the supervisor asks him to produce more than for the previous period. Thirty-one (66%) of those responding expect their students to work alone and increase production when the supervisor asks him to complete work by a specified time and to respond to an instruction requiring immediate compliance within 0-30 seconds.

TABLE 7

EXIT SKILLS IDENTIFIED BY 70 TO 66 PERCENT OF
49 PREVOCATIONAL PROGRAMS NATIONWIDE

Skill	Number of Respondents	Percentage
Work at job station with: No more than 1-2 work disruptions per day	33	
Respond appropriately to safety signals given: Through signs	33	70%
Eat lunch independently with no assistance in:		
Pouring liquid into cup or glass	33	
Putting food back into container	33	
Does not display or engage in: Minor disruptive behavior more than: 1-2 times per week	32	68%
Work in a group situation and increase production: When supervisor asks him to produce more than that produced for the previous period	32	
Work alone and increase production: When supervisor asks to complete work by specified time	31	66%
Respond to instruction requiring immediate compliance within: 0-30 seconds	31	

Table 8 shows that there was less agreement among the responding programs regarding the remaining skills that appear on the short Mithaug questionnaire.

TABLE 8

EXIT SKILLS IDENTIFIED BY 64 TO 53 PERCENT OF 49 PREVOCATIONAL PROGRAMS NATIONWIDE

Skill	Number of Respondents	Percentage
Participate in work environment for 6-hour periods	30	
Deviate from shop rules no more than 1-2 times per week	30	64%
Initiate contact inappropriately with strangers no more than 1-2 times per day	30	
Correct work on task after the second correction	29	62%
Reach place of work by means of: Own arrangement	29	
Learn to minimum proficiency a new job with one step in 0-15 minutes	27	57%
Adapt to new work environment with normal levels of productivity in 1-5 days	25	53%
Reach place of work by means of: Company-sponsored vehicle	25	

Some very specific worker behaviors are cited. Thirty (64%) of the respondents expect their students to work for 6-hour periods, deviate from shop rules no more than 1-2 times per week, and inappropriately contact strangers no more than 1-2 times per day. Twenty-nine (62%) of the respondents require their students to correct work on tasks after the second correction. Twenty-nine (62%) also expect their students to be able to reach the place of work by their own arrangement, while 25 (53%) allow their students to get to work in a company-sponsored vehicle. Twenty-seven (57%) teach their students a new 1-step job to minimum proficiency in 1-5 minutes. Twenty-five (53%) also expect their students to adapt to a new work environment with normal levels of productivity in 1-5 days. A complete rank order of the exit skills identified by the prevocational programs nationwide appears in Appendix P, page P-1.

Entry Skills of North Dakota Vocational Programs

This section discusses the rank order by frequency distribution of skills identified by the selected North Dakota vocational programs as criteria for admission to their programs. These respondents completed the comprehensive Mithaug instrument, so there are considerably more skills listed in the rankings. Listings have been prepared for the three kinds of programs surveyed: activity centers, vocational training programs, and sheltered employment training programs; as well as for the composite of all the North Dakota facilities that participated in the study.

North Dakota Activity Centers

Although there are nine activity center programs in North Dakota, only seven of them filled out the questionnaire. The other two had agreed to participate in the study, but felt they did not have specific enough entry criteria to be able to fill out the surveys. For this reason the listing of entry criteria for admission to North Dakota activity centers is based upon the information provided by seven programs. The following narrative will discuss the items identified on the long Mithaug instrument as required for admission into the North Dakota activity centers, as noted by more than 50 percent of the programs that responded.

Table 9 identifies the skills required for admission to all (100%) of the North Dakota activity centers that filled out the questionnaires. Included in this category of unanimous choice were the ability to communicate such basic needs as thirst, hunger, sickness, pain, and any toileting necessities, as well as the ability to communicate the basic needs receptively and expressively by means of gestures. Maintaining proper grooming by dressing appropriately after using the restroom was also identified by all programs responding.

TABLE 9

ENTRY SKILLS IDENTIFIED BY 100 PERCENT OF 7
NORTH DAKOTA ACTIVITY CENTERS

Skill	Number of Respondents	Percentage
Be able to communicate such basic needs as:		
Thirst	7	
Hunger	7	
Sickness	7	
Pain	7	
Toileting necessities	7	100%
Be able to communicate basic needs expressively by means of: Gestures	7	
Be able to communicate basic needs receptively by means of: Gestures	7	
Maintain proper grooming by: Dressing appropriately after using restroom	7	

Table 10 reveals that 6 (86%) of the programs responding regarded maintaining proper grooming by cleaning self before coming to work, cleaning self after using the restroom and after eating lunch, eating food appropriately at lunch, and taking care of toileting needs independently with no accidents as important criteria for admission.

TABLE 10

ENTRY SKILLS IDENTIFIED BY 86 PERCENT OF 7
NORTH DAKOTA ACTIVITY CENTERS

Skill	Number of Respondents	Percentage
Maintain proper grooming by:		
Cleaning self before coming to work	6	
Cleaning self after using the restroom	6	
Cleaning self after eating lunch	6	86%
Maintain proper grooming by: Eating food appropriately at lunch	6	
Be able to take care of toileting needs independently with: No accidents	6	

TABLE 11

ENTRY SKILLS IDENTIFIED BY 71 PERCENT OF 7 NORTH DAKOTA ACTIVITY CENTERS

Skill	Number of Respondents	Percentage
Recite verbally upon request: Full name	5	
Maintain proper grooming by:		
Dressing appropriately for work	5	
Displaying proper table manners at lunch	5	71%
Maintain personal hygiene by:		
Shaving regularly	5	
Keeping teeth clean	5	
Keeping hair combed	5	
Keeping nails clean	5	
Using deodorant	5	
Be able to eat lunch independently with no assistance in:		
Getting lunch sack or container	5	
Getting food out of container	5	71%
Pouring liquid into cup or glass	5	
Putting food remainder back in container when finished	5	
Putting luxch container away	5	
Be able to reach place of work by means of: Own arrangement	5	
Be absent from work no more than: An average of zero days per week	5	
Respond appropriately to safety signals when given:		
Through signs	5	
From signals (buzzers, bells, etc.)	5	
Have gross motor coordination to walk: To and from job station	5	
Learn to work at new job tasks when supervisor explains by modeling (doing the task in front of client)	5	71%
Continue working without disruptions when: Supervisor is observing	5	
Initiate contact with supervisor when he:		
Feels too sick or tired to continue working	5	
Needs drink of water or to go to restroom	5	

Table 11 shows a wide variety of skills required by 5 (71%) of the respondents. A number of independent living skills are cited by this group: among them the maintenance of proper grooming by dressing appropriately for work and displaying proper table manners at lunch; and the maintenance of personal hygiene by shaving regularly, keeping teeth clean, keeping hair combed, keeping nails clean, and using deodorant. The ability to eat lunch independently with no assistance in getting lunch sack, getting food out of sackg pouring liquid into cup or glass, putting remaining food back into container, and putting the container away; and the ability to tell someone else their name are also skills that are required by this group of 5 activity centers.

Table 11 also reveals that 5 (71%) of the activity centers filling out the questionnaires require several worker behaviors. They expect their students to get to work by their own arrangement, to be absent from work an average of zero days per week, and to repond to safety signals given either through signs, or from signals such as buzzers, bells, etc. Other criteria for admission are the ability to walk to and from the job station, to be able to learn new job tasks when the supervisor explains by modeling, and to continue working when the supervisor is observing. The student should also initiate contact with his supervisor when he feels too sick or tired to continue working or when he needs a drink of water or to go to the restroom.

Table 12 indicates the skills identified by 4 (57%) of the activity centers in North Dakota as criteria for entry into their programs. Some communication skills cited were the ability to tell someone their home address, and to communicate basic needs expressively and receptively either by verbal expression or through signs. The ability to read and

TABLE 12

ENTRY SKILLS IDENTIFIED BY 57 PERCENT OF 7 NORTH DAKOTA ACTIVITY CENTERS

Skill	Number of Respondents	Percentage
Recite verbally upon request: Home address	4	
Be able to communicate basic needs expressively by means of:		
Verbal expression	4	57%
Signs	4	
Be able to communicate basic needs receptively by means of:		
Verbal expression	4	
Signs	4	
Read and follow community signs such as Stop, Go, Bus, Caution, Walk, Wait, etc.	4	
Be able to eat lunch independently with no assistance in eating food in appropriate order	4	
Be able to reach place of work by means of: Company-sponsored vehicle	4	
Appear at job station on time and without prompting in the morning when work begins	4	57%
Understand work routine by not displaying disruptive behaviors when routine task or program changes occur	4	
Be able to keep his/her work station area neat by picking up materials dropped on floor in area	4	
Respond appropriately to safety signals when given verbally	4	
Move safely about shop by:		
Walking from place to place	4	
Identifying and avoiding dangerous areas	4	
Learn to work at new job tasks when supervisor explains by physically prompting	4	
Be able to participate in work environment for periods of 1 hour	4	
Continue working without disruptions when fellow workers are observing	4	57%
Work alone continuously without disruptions for a 30-minute period with 1-2 contacts from supervisor	4	
Increase productivity in group or individual settings when supervisor provides immediate tangible incentives for completed work (money, tokens, etc.)	4	

TABLE 12--Continued

Skill	Number of Respondents	Percentage
Initiate contact with supervisor when he cannot do job	4	
Want to work for:		
Money	4	57%
Social approval	4	

follow such signs as Stop, Go, Walk, Wait, etc. was also noted in this group of communication skills. Some independent living skills required by this group of respondents were the ability to eat lunch foods in the proper order, to reach work in a company-sponsored vehicle, and to get to work in the morning without prompting.

A number of specific worker behaviors were also identified by this group of 4 (57%) North Dakota activity centers. Understanding work routine by not displaying disruptive behavior during routine program or task changes, keeping his/her work station neat, responding appropriately to verbal safety signals, and moving safely about the shop by walking from place to place and identifying and avoiding dangerous areas were noted by this group. The activity centers also expect their prospective clients to be able to learn new tasks by prompting, to be able to participate in work environment for 1 hour periods, to continue working when fellow workers are observing, and to work alone without disruptions for a 30-minute period with 1-2 contacts from the supervisor.

In the area of motivation, this group of activity centers expect their clients to increase production when provided with immediate incentives such as money or token, to initiate contact with their supervisor when they cannot do the job, and to want to work for either money or social approval. A complete listing of entry criteria identified by North Dakota activity centers appears in Appendix Q, page Q-1.

North Dakota Vocational Training Programs

There are five vocational training programs for the severely handicapped that participated in the study. This section discusses the items identified on the long Mithaug instrument as required for admission into the North Dakota vocational training programs, as noted by more than 50 percent of the programs that responded.

TABLE 13

ENTRY SKILLS IDENTIFIED BY 100 PERCENT OF 5
NORTH DAKOTA VOCATIONAL TRAINING PROGRAMS

Skill	Number of Respondents	Percentage
Be able to communicate such basic needs as:		
Thirst	5	100%
Hunger	5	
Sickness	5	
Pain	5	
Toileting necessities	5	

Table 13 shows there is unanimous agreement among North Dakota's vocational training programs that their entering clients should be able to communicate such basic needs as thirst, hunger, sickness, pain, and toileting necessities. This is consistent with North Dakota's activity centers which also indicated 100 percent agreement that this communication skill was necessary for entrance.

Table 14 lists the skills indicated by 4 (80%) of the vocational training programs participating in the study. Communication skills cited by this group included the ability to recite one's full name, and to communicate basic needs both expressively and receptively by means of verbal expression. Some independent living skills noted were dressing appropriately after using the restroom, taking care of toileting needs with no accidents and reaching work by one's own arrangement.

TABLE 14

ENTRY SKILLS IDENTIFIED BY 80 PERCENT OF 5 NORTH DAKOTA VOCATIONAL TRAINING PROGRAMS

Skill	Number of Respondents	Percentage
Recite verbally upon request: Full name	4	
Be able to communicate basic needs:		
Expressively by means of verbal expression	4	
Receptively by means of verbal expression	4	80%
Maintain proper grooming by: Dressing appropriately after using restroom	4	
Be able to take care of toileting needs independently with: No accidents	4	
Be able to reach place of work by means of: Own arrangement	4	
Be absent from work no more than: An average of zero days per week	4	
Respond appropriately to safety signals given:		
Verbally	4	
Through signs	4	
Respond appropriately and immediately after receiving: Each instruction	4	80%
Learn to work at new job tasks when supervisor explains by: Modeling	4	
Not leave job station inappropriately during work period more than: 1-2 times per day	4	
Continue working without disruptions when: Supervisor is observing	4	

This group of 4 respondents noted that clients should be absent from work an average of zero days per week, respond appropriately to safety signals given either verbally or through signs, and should respond immediately after receiving each instruction. In addition, the vocational training programs required their prospective clients to be able to learn new tasks when supervisor explains by modeling, to continue working when supervisor is observing, and to leave the work station inappropriately no more than 1-2 times per day.

Table 15 reveals the skills identified by 3 (60%) of North Dakota's vocational training programs as criteria for admission. Again, several communication skills are noted; among them the ability to recite one's home address and telephone number, and to read and follow such signs as Stop, Go, Bus, Wait, etc. This group also felt their clients should want to work for money and should understand its use to purchase items.

TABLE 15

ENTRY SKILLS IDENTIFIED BY 60 PERCENT OF 5
NORTH DAKOTA VOCATIONAL TRAINING PROGRAMS

Skill	Number of Respondents	Percentage
Recite verbally upon request:		
Home address	3	
Telephone	3	
Read and follow community signs such as Stop, Go, Bus, Caution, Walk, Wait, etc.	3	60%
Understand the purpose of money: To use money to purchase items	3	
Maintain proper grooming by: Cleaning self after using the restroom	3	
Be able to eat lunch independently with no assistance in:		
Getting lunch sack or container	3	
Getting food out of container	3	
Putting food remainder back in container when finished	3	
Putting lunch container away	3	
Be able to reach place of work by means of: Company-sponsored vehicle	3	
Appear at job station on time and without prompting:		
In the morning when work begins	3	60%
After each coffee break	3	
After lunch	3	
Have gross motor coordination to walk: To and from job station	3	
Learn to work at new job tasks when supervisor explains by: Verbally explaining how the task is to be done	3	

TABLE 15--Continued

Skill	Number of Respondents	Percentage
Work independently alone at table without discontinuing work more frequently than: 3-5 times per day	3	
Initiate contact with supervisor when he:		
Cannot do job	3	
Runs out of materials to do job	3	
Finishes job	3	60%
Feels too sick or tired to continue working	3	
Needs drink of water or to go to restroom	3	
Makes a mistake on the job	3	
Want to work for: Money	3	

Table 15 also cites a number of independent living skills required for admission to North Dakota's vocational training programs. Students should be able to clean themselves after using the restroom, and eat lunch with no help in getting the lunch sack, getting food out of the sack, putting food away when finished, and putting the sack away. The student should be able to get to work in a company-sponsored vehicle and appear on time, without prompting, in the morning, after each coffee break, and after lunch. The gross motor coordination to walk to and from the job station is also mentioned by 3 (60%) of the respondents. Some worker behaviors noted were the ability to learn new tasks when the supervisor explains verbally, to work independently without more than 3-5 disruptions per day, and to initiate contact with the supervisor when he cannot do the job, when he runs out of materials, when he finishes the job, when he feels too sick or tired to continue working, when he needs a drink or to go to the restroom, and when he makes a mistake. A complete listing of all skills identified by North Dakota vocational training programs as criteria for admission is given in Appendix R, page R-1.

North Dakota Sheltered Employment Training Programs

There are in North Dakota four sheltered employment training programs for the vocational education of the severely handicapped that participated in this study. This section includes the items identified on the long Mithaug instrument as required for admission into the North Dakota sheltered employment programs, as noted by more than 50 percent of the programs responding.

TABLE 16

ENTRY SKILLS IDENTIFIED BY 100 PERCENT OF
4 NORTH DAKOTA SHELTERED EMPLOYMENT TRAINING PROGRAMS

Skill	Number of Respondents	Percentage
Be able to communicate such basic needs as:		
Thirst	4	100%
Hunger	4	
Sickness	4	
Pain	4	
Toileting necessities	4	
Be able to reach place of work by means of: Own transportation	4	
Be absent from work no more than: An average of zero days per week	4	

Table 16 shows that all 4 (100%) of the sheltered employment training programs require their students to be able to communicate such basic needs as thirst, hunger, sickness, pain, and toileting necessities. This too is consistent with activity centers and vocational training programs in that they also unanimously cited this ability as necessary for admission to their programs. The sheltered employment training programs were a little more exacting in that they also designate getting to work by means of their own transportation, as well as being absent from work no more than zero days per week as requirements for admission.

TABLE 17

ENTRY SKILLS IDENTIFIED BY 75 PERCENT OF 4
NORTH DAKOTA SHELTERED EMPLOYMENT TRAINING PROGRAMS

Skill	Number of Respondents	Percentage
Recite verbally upon request: Full name	3	
Be able to communicate basic needs:		
Expressively by means of: Gestures	3	
Receptively by means of: Gestures	3	75%
Read and follow community signs such as Stop, Go, Bus, Walk, Caution, Wait, etc.	3	
Understand the purpose of money: To use money to purchase items	3	
Maintain proper grooming by: Dressing appropriately after using the restroom	3	
Be able to eat lunch independently with no assistance in:		
Getting lunch sack or container	3	
Getting food out of container	3	
Putting food remainder back in container when finished	3	
Putting lunch container away	3	75%
Be able to reach place of work by means of: Company-sponsored vehicle	3	
Appear at job station on time and without prompting:		
In the morning when work begins	3	
After each coffee break	3	
After lunch	3	
Respond appropriately to safety signals when given: From signals (buzzers, bells, etc.)	3	
Learn to work at new job tasks when supervisor explains by modeling (doing task in front of client)	3	
Not leave job station inappropriately during work period more than: 1-2 times per day	3	
Continue working without disruptions when: Supervisor is observing	3	
Initiate contact with supervisor when he:		
Cannot do job	3	75%
Runs out of materials to do job	3	
Finishes job	3	

TABLE 17--Continued

Skill	Number of Respondents	Percentage
Needs drink of water or to go to restroom	3	
Makes a mistake on the job	3	75%
Does not display or engage in major disruptive behaviors (e.g., tantrums) more frequently than: 1-2 times per week	3	

Table 17 identifies the skills required by 3 (75%) of North Dakota's sheltered employment training programs for admission into these programs. Communication skills cited by this group were the ability to recite verbally one's full name, the ability to make one's basic needs known both expressively and receptively by means of gestures, and the ability to read and follow such signs as Stop, Go, Wait, Walk, etc. Independent living skills listed by this group of 3 were understanding the use of money to purchase items, maintaining proper grooming by dressing appropriately after using the restroom, and eating lunch with no assistance in getting lunch sack, getting food out of container, putting food remainder away when finished, and putting lunch sack away.

This group also requires prospective clients to be able to get to work by means of a company-sponsored vehicle, and to appear at the job station without prompting in the morning, after each coffee break, and after lunch. Other skills required are the ability to respond appropriately to signals given by buzzers, bells, etc., the ability to learn new tasks when the supervisor demonstrates the task in front of the client (modeling), and the endurance to not leave the job station more than 1-2 times per day. The clients should also be able to continue working when the supervisor is observing, and initiate contact with the supervisor when he can't do the job, runs out of materials, finishes the job, needs a drink of water or to go to the restroom, or makes a mistake on the job. This group of sheltered employment training programs will not tolerate major disruptive behavior such as tantrums more than 1-2 times per week. A complete listing of all skills identified by North Dakota sheltered employment training programs as criteria for admission is given in Appendix S, page S-1.

Composite of All North Dakota Facilities

Nine separate facilities in North Dakota (See Appendix I, page I-1) completed the long form Mithaug instrument which provided the data for this and the preceding three sections. Several of these facilities have more than one of the programs surveyed and so they provided data for each separate program within their facility; i.e., Agassiz Enterprises has an activity center, vocational training program, and sheltered employment training program so they provided a separate listing of criteria for admission to each of the three kinds of programs. In total, there were 16 programs in North Dakota that provided data for the study. This listing is, essentially, a combination of all the data provided in the preceding three sections.

Table 18 indicates the skills identified by all 16 (100%) of the programs participating. They unanimously agreed that clients needed to be able to communicate such basic needs as thirst, hunger, sickness, pain, and toileting necessities in order to be admitted to their programs.

TABLE 18

ENTRY SKILLS IDENTIFIED BY 100 PERCENT OF
16 NORTH DAKOTA PROGRAMS IN 9 SEPARATE FACILITIES

Skill	Number of Respondents	Percentage
Be able to communicate such basic needs as:		
Thirst	16	100%
Hunger	16	
Sickness	16	
Pain	16	
Toileting necessities	16	

Table 19 reveals the skills identified as criteria for admission by 88 to 75 percent of the 16 programs responding.

TABLE 19

ENTRY SKILLS IDENTIFIED BY 88 TO 75 PERCENT OF
16 NORTH DAKOTA PROGRAMS IN 9 SEPARATE FACILITIES

Skill	Number of Respondents	Percentage
Maintain proper grooming by: Dressing appropriately after using restroom	14	88%
Be able to reach place of work by means of: Own arrangement	13	81%
Be absent from work no more than: An average of zero days per week	13	
Recite verbally upon request: Full name	12	75%
Be able to communicate basic needs:		
Expressively by means of: Gestures	12	
Receptively by means of: Gestures	12	
Be able to take care of toileting needs independently with: No accidents	12	
Learn to work at new job tasks when supervisor explains by modeling (doing task in front of client)	12	
Continue working without disruptions when: Supervisor is observing	12	

Fourteen of the respondents (88%) identified dressing appropriately after using the restroom as an important entry criteria. Thirteen (81%) felt students should be able to get to work by their own arrangement and be absent from work an average of zero days per week. Communication skills cited by 12 (75%) of the respondents were the ability to recite one's full name, and to make one's needs known both expressively and receptively by means of gestures. This group also requires students to take care of toileting needs with no accidents, learn new job tasks when they are explained by modeling, and to continue working without disruption when the supervisor is watching.

TABLE 20

ENTRY SKILLS IDENTIFIED BY 69 PERCENT OF
16 NORTH DAKOTA PROGRAMS IN 9 SEPARATE FACILITIES

Skill	Number of Respondents	Percentage
Maintain proper grooming by: Cleaning self after using restroom	11	
Be able to eat lunch independently without assistance in:		
Getting lunch sack or container	11	
Getting food out of container	11	69%
Putting food remainder back when finished	11	
Putting lunch container away	11	
Respond appropriately to safety signals when given: Through signs	11	
Initiate contact with supervisor when he: Needs drink of water or to go to restroom	11	

Table 20 shows that most of the skills identified by 11 (69%) of the programs are self-help skills such as cleaning self after using restroom, and eating without assistance in getting lunch sack, getting food out of the sack, putting food away when finished, and putting the sack away.

These 11 respondents also require their students to respond appropriately to safety signals in the form of signs and to initiate contact with their supervisor when they need a drink or to go to the restroom.

TABLE 21

ENTRY SKILLS IDENTIFIED BY 63 PERCENT OF 16
NORTH DAKOTA PROGRAMS IN 9 SEPARATE FACILITIES

Skill	Number of Respondents	Percentage
Be able to communicate basic needs:		
Expressively by means of: Verbal expression	10	
Receptively by means of: Verbal expression	10	
Read and follow community signs such as Stop, Go, Bus, Caution, Walk, Wait, etc.	10	
Maintain proper grooming by:		
Cleaning self before coming to work	10	
Cleaning self after eating lunch	10	
Eating food appropriately at lunch	10	
Be able to reach place of work by means of: Company-sponsored vehicle	10	63%
Appear at job station on time and without prompting: In the morning when work begins	10	
Respond appropriately to safety signals when given:		
Verbally	10	
From signals (buzzers, bells, etc.)	10	
Have gross motor coordination to walk: To and from job station	10	
Initiate contact with supervisor when he:		
Cannot do job	10	
Feels too sick or tired to continue working	10	

Table 21 indicates that 10 (63%) of the programs responding regard the communication of basic needs both expressively and receptively by means of verbal expression as important. The ability to read and follow such community signs as Stop, Go, Walk, Wait, etc. was also a communication skill noted by this group of 10.

Independent living skills such as cleaning self before coming to work, after eating lunch, and eating food appropriately at lunch were listed as important by these 10 respondents. They also expect their students to be able to get to work in a company-sponsored vehicle, to get to work in the morning without prompting, and to respond to verbal or signal (buzzers, bells) safety warnings. Their students should be able to walk to and from the job station and initiate contact with the supervisor when he cannot do the job or when he feels too sick or tired to continue working.

TABLE 22

ENTRY SKILLS IDENTIFIED BY 56 PERCENT OF 16 NORTH DAKOTA PROGRAMS IN 9 SEPARATE FACILITIES

Skill	Number of Respondents	Percentage
Recite verbally upon request: Home address	9	
Maintain proper grooming by:		
Dressing appropriately for work	9	
Displaying proper table manners at lunch	9	
Maintain personal hygiene by:		
Shaving regularly	9	
Keeping teeth clean	9	
Keeping hair combed	9	
Keeping nails clean	9	56%
Using deodorant	9	
Be able to eat lunch independently with assistance in pouring liquid into cup or glass	9	
Initiate contact with supervisor when he:		
Runs out of materials to do job	9	
Finishes job	9	
Makes a mistake on the job	9	
Not leave job station inappropriately during work period more than: 1-2 times per day	9	
Want to work for: Money	9	

1

Table 22 shows that 9 (56%) of the respondents feel their prospective clients should be able to recite their home address. Independent living skills such as dressing appropriately for work, displaying proper table manners at lunch, shaving regularly, keeping teeth clean, hair combed, and nails clean, using deodorant, and being able to pour liquid into a cup or glass are also regarded as important by slightly more than half of the total group providing data. Job skills a student should have are the ability to contact the supervisor when he runs out of materials, finishes the job, or makes a mistake on the job and the endurance to not leave his job station inappropriately more than 1-2 times per day. They also want their students to be motivated to work for money. A complete listing of this composite of all the North Dakota programs participating in this study is provided in Appendix T, page T-1.

In order to compare the exit skills that the prevocational programs nationwide are training their students to possess and the entry level skills that North Dakota programs require for admission, Tables 23 and 24 have been prepared. Because the North Dakota programs completed the long Mithaug instrument, the items from the short Mithaug instrument have been extrapolated from it, in order to do the comparison. Table 23 identifies the most important skills cited by the 49 prevocational programs nationwide (those cited by 77% or more of the programs responding). Table 24 lists the most important entry level skills required by the North Dakota vocational programs (those cited by 56% or more of the programs participating). The somewhat smaller percentage was used for the North Dakota Programs because of the small number of respondents. The items starred (*) on both Tables 23 and 24 are those that appear BOTH as an exit skill of the prevocational programs and as an entry skill of the North Dakota programs.

TABLE 23

RANK ORDER OF EXIT SKILLS AS IDENTIFIED
BY 49 PREVOCATIONAL PROGRAMS

Skill	Number of Respondents	Percentage
* Communicates basic needs expressively by means of verbal expression	44	93%
* Learn new tasks when supervisor explains by modeling	43	91%
* Maintain proper grooming by dressing appropriately for work	43	
* Maintain personal hygiene by keeping teeth clean, using deodorant	42	89%
Work continuously at job station for 1-2 hour periods	41	
* Want to work for money/sense of accomplishment	41	
Understand work routine by not displaying disruptive behavior during routine program changes	41	
Continue to work without disruption when stranger is observing	41	87%
* Respond appropriately to safety signals given verbally	41	
* Initiate contact with supervisor when feeling too sick/tired to work	41	
* Maintain proper grooming by cleaning self after using restroom	41	
* Maintain personal hygiene by keeping hair combed, keeping nails clean	41	
Move safely about shop by identifying and avoiding dangerous areas	40	
* Communicate basic needs receptively by means of verbal expression	40	
* Initiate contact with supervisor when cannot do job, runs out of material, finishes job	40	85%
* Maintain proper grooming by dressing appropriately after using restroom, cleaning self before coming to work, cleaning self after eating lunch	40	
* Maintain personal hygiene by shaving regularly	40	
Move safely about shop by walking from place to place	39	83%

TABLE 23--Continued

Skill	Number of Respondents	Percentage
* Continue to work without disruption when supervisor is observing	39	83%
Work alone without disruption for 15-minute periods with no contacts from supervisor	39	
* Leave job station inappropriately no more than 1-2 times per day	38	
Continue to work without disruption when fellow worker is observing	38	
* Communicates basic needs expressively by means of gestures	38	81%
* Initiates contact with supervisor when needs drink/restroom, makes a mistake	38	
* Maintain proper grooming by eating food appropriately at lunch	38	
Move safely about shop by wearing safe work clothing	37	
Complete repetitive tasks involving 1 step at 95% accuracy	37	79%
* Eat lunch independently with no assistance in putting food container away	37	
* Come to work on an average of 5 times per week	36	
Work in group situation and increase production when supervisor asks to complete work by a specific time	36	
Work alone without disruptions for 30-minute periods with 1-2 contacts from supervisor	36	
* Respond appropriately to safety signals given through signs	36	77%
* Maintain proper grooming by displaying proper table manners	36	
* Eat lunch independently with no assistance in getting lunch sack/container, getting food out of container	36	
* Take care of toileting needs independently with no accidents	36	

* Denotes skill identified by prevocational programs nationwide as an exit skills AND by North Dakota programs as an entry skill

TABLE 24

RANK ORDER OF ENTRY LEVEL SKILLS AS IDENTIFIED BY 16 NORTH DAKOTA PROGRAMS

Skill	Number of Respondents	Percentage
* Be able to communicate such basic needs as thirst, hunger, sickness, pain, toileting necessities	16	100%
* Maintain proper grooming by dressing appropriately after using restroom	14	88%
Be able to reach place of work by means of own arrangement	13	81%
* Be absent from work no more than an average of zero days per week	13	
Recite verbally upon request: Full name	12	75%
* Be able to communicate basic needs expressively and receptively by means of gestures	12	
* Be able to take care of toileting needs independently with no accidents	12	
* Learn to work at new job tasks when supervisor explains by modeling (doing task in front of client)	12	
* Continue to work without disruptions when supervisor is observing	12	
* Maintain proper grooming by cleaning self after using the restroom	11	69%
* Be able to eat lunch independently with no assistance in getting lunch sack, getting food out of sack, putting food remainder away when finished, putting lunch container away	11	
* Respond appropriately to safety signals given through signs	11	
* Initiates contact with supervisor when he needs drink of water/restroom	11	
* Be able to communicate basic needs expressively and receptively by means of verbal expression	10	63%
Read and follow community signs such as Stop, Go, Bus, Caution, Walk, Wait, etc.	10	
* Maintain proper grooming by cleaning self before coming to work, after lunch, be eating appropriately at lunch	10	

TABLE 24--Continued

Skill	Number of Respondents	Percentage
Be able to reach place of work by means of company-sponsored vehicle	10	
Appear at job station on time and without prompting in the morning when work begins	10	
* Respond appropriately to safety signals when given verbally, from signals (buzzers, bells, etc.)	10	63%
Have gross motor coordination to walk to and from job station	10	
* Initiate contact with supervisor when he cannot do job, feels too sick or tired to continue working	10	
Recite verbally upon request: Home address	9	
* Maintain proper grooming by dressing appropriately for work, displaying proper table manners at lunch	9	
* Maintain personal hygiene by shaving regularly, keeping teeth clean, keeping hair combed, keeping nails clean, using deodorant	9	
Be able to eat lunch independently with no assistance in pouring liquid into cup or glass	9	56%
* Initiate contact with supervisor when he runs out of materials to do job, finishes job, makes a mistake on the job	9	
* Not leave work station inappropriately during work period more than 1-2 times per day	9	
* Want to work for money	9	

* Denotes skill identified by prevocational programs nationwide as an exit skill AND by North Dakota programs as an entry skill

(A complete listing of all skills identified by prevocational programs nationwide appears in Appendix P and the complete listing of all skills identified by all North Dakota programs appears in Appendix T.)

Table 25 shows how these listings of skills compare. Table 26 shows the skills that the prevocational programs train their students to possess, but which the North Dakota programs do not require for admission. Table 27 lists the skills that North Dakota programs require for entry that are not identified as an important part of the prevocational training programs nationwide.

TABLE 25

COMPARISON OF PREVOCATIONAL EXIT SKILLS AND VOCATIONAL ENTRY LEVEL SKILLS

Rank Order of Exit Skills as Identified by 49 Prevocational Programs

Chosen By	Percentage	Skill
44	93%	* Communicates basic needs expressively by means of verbal expression
43	91%	* Learn new tasks when supervisor explains by modeling
43		* Maintain pr. er grooming by dressing appropriately for work
42	89%	* Maintain personal hygiene by keeping teeth clean, using deodorant
41		Work continuously at job station for 1-2 hour periods
41		* Want to work for money/sense of accomplishment
41		Understand work routine by not displaying disruptive behavior during routine program changes
41		Continue to work without disruption when stranger is observing
41	87%	* Respond appropriately to safety signals given verbally
41		* Initiate contact with supervisor when feeling too sick/tired to work
41		* Maintain proper grooming by cleaning self after using restroom
41		* Maintain personal hygiene by keeping hair combed, keeping nails clean
40		Move safely about shop by identifying and avoiding dangerous areas
40		* Communicate basic needs receptively by means of verbal expression
40	85%	* Initiate contact with supervisor when cannot do job, runs out of material, finishes job
40		* Maintain proper grooming by dressing appropriately after using restroom, cleaning self before coming to work, cleaning self after eating lunch
40		* Maintain personal hygiene by shaving regularly
39		Move safely about shop by walking from place to place .
39	83%	* Continue to work without disruption when supervisor is observing
39		Work alone without disruption for 15-minute periods with no contacts from supervisor
38		* Leave job station inappropriately no more than 1-2 times per day
38		Continue to work without disruption when fellow worker is observing
38	81%	* Communicates basic needs expressivel by means of gestures
38		* Initiates contact with supervisor when needs drink/restroom, makes a mistake
38		* Maintain proper grooming by eating food appropriately a' lunch
37		Move safely about shop by wearing safe work clothing
37	79%	Complete repetitive tasks involving 1 step at 95% accuracy
37		* Eat lunch independently with no assistance in putting food container away
36		* Come to work on an average of 5 times per week
36		Work in group situation and increase production when supervisor asks to complete work by specific time
36		Work alone without disruptions for 30-minute periods with 1-2 contacts from supervisor
36	77%	* Respond appropriately to safety signals given through signs
36		* Maintain proper grooming by displaying proper table manners
36		* Eat lunch inde;endently with no assistance in getting lunch sack/container, getting food out of container
36		* Take care of toileting needs independently with no accidents

* Denotes skill identified by North Dakota programs as entry level skill AND by prevocational programs nationwide as an exit skill

Rank Order of Entry Skills as Identified by 16 North Dakota Programs

Chosen By	Percentage	Skill
16	100%	* Be able to communicate such basic needs as thirst, hunger, sickness, pain, toileting necessities
14	88%	* Maintain proper grooming by dressing appropriately after using restroom
13	81%	Be able to reach place of work by means of own arrangement
13		* Be absent from work no more than an average of zero days per week
12		Recite verbally upon request: Full name
12		* Be able to communicate basic needs expressively and receptively by means of gestures
12	75%	* Be able to take care of toileting needs independently with no accidents
12		* Learn to work at new job tasks when supervisor explains by modeling (doing the task in front of client)
12		* Continue working without disruptions when supervisor is observing
11		* Maintain proper grooming by cleaning self after using the restroom
11	69%	* Be able to eat lunch independently with no assistance in getting lunch sack/container, getting food out of container, putting food remainder back in container when finished, putting lunch container away
11		* Respond appropriately to safety signals when given through signs
11		* Initiates contact with supervisor when he needs drink of water/restroom
10		* Be able to communicate basic needs expressively and receptively by means of verbal expression
10		Read and follow community signs such as Stop, Go, Bus, Caution, Walk, Wait, etc.
10		* Maintain proper grooming by cleaning self before coming to work, after eating lunch, by eating appropriately at lunch
10	63%	Be able to reach place of work by means of company-sponsored vehicle
10		Appear at job station on time and without prompting in the morning when work begins
10		* Respond appropriately to safety signals when given verbally, from signals (buzzers, bells, etc.)
10		Have gross motor coordination to walk to and from job station
10		* Initiate contact with supervisor when he cannot do job, feels too sick or tired to continue working
9		Recite verbally upon request: Home address
9		* Maintain proper grooming by dressing appropriately for work, displaying proper table manners at lunch
9		* Maintain personal hygiene by shaving regularly, keeping teeth clean, keeping hair combed, keeping nails clean, using deodorant
9	56%	Be able to eat lunch independently with no assistance in pouring liquid into cup or glass
9		* Initiate contact with supervisor when he runs out of material to do job, finishes job, makes a mistake on the job
9		* Not leave job station inappropriately during work period more than 1-2 times per day
9		* Want to work for money

* Denotes skill identified by North Dakota programs as entry level skill AND by prevocational programs nationwide as an exit skill

TABLE 26

SKILLS TRAINED BY PREVOCATIONAL PROGRAMS NATIONWIDE
BUT NOT
IDENTIFIED AS ENTRY SKILLS BY NORTH DAKOTA PROGRAMS

Work continuously at job station for 1-2 hour periods

Understand work routine by not displaying disruptive behavior during routine program changes

Continue to work without disruption when stranger is observing

Move safely about shop by identifying and avoiding dangerous areas, by walking from place to place, by wearing safe work clothing

Work alone without disruption for 15-minute periods with no contacts from supervisor

Continue to work without disruption when fellow worker is observing

Complete repetitive tasks involving 1 step at 95% accuracy

Work in group situation and increase production when supervisor asks to complete work by specific time

Work alone without disruptions for 30-minute periods with 1-2 contacts from supervisor

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TABLE 27

SKILLS IDENTIFIED AS ENTRY SKILLS BY NORTH DAKOTA PROGRAMS
BUT NOT
IDENTIFIED AS EXIT SKILLS BY PREVOCATIONAL PROGRAMS

Be able to reach place of work by means of own arrangement or by company-sponsored vehicle

Recite verbally upon request: Full name, home address

Read and follow community signs such as Stop, Go, Bus, Caution, Walk, Wait, etc.

Appear at job station on time and without prompting in the morning when work begins

Have gross motor coordination to walk to and from job station

Be able to eat lunch independently with no assistance in pouring liquid into cup or glass

Table 28 indicates the areas of agreement between the prevocational programs nationwide and the North Dakota vocational programs for the severely handicapped.

TABLE 28

SKILLS IDENTIFIED BY PREVOCATIONAL PROGRAMS AS EXIT SKILLS AND BY NORTH DAKOTA VOCATIONAL PROGRAMS AS ENTRY SKILLS

Communicates basic needs - receptively and expressively by verbal expression and/or gestures

Learns new tasks when supervisor explains by modeling

Maintains personal hygiene by keeping teeth clean, using deodorant, keeping hair combed, keeping nails clean, shaving regularly

Wants to work for money/sense of accomplishment

Responds appropriately to safety signals given verbally or through signs

Initiates contact with supervisor when feeling too sick/tired to work, when cannot do job, runs out of material, finishes job, when needs drink/restroom, or makes a mistake

Maintains proper grooming by cleaning self after using restroom, dressing appropriately after using restroom, cleaning self before coming to work cleaning self after eating lunch, eating food appropriately at lunch, displaying proper table manners, dressing appropriately for work

Continues to work without disruption when supervisor is observing

Leaves job station inappropriately no more than 1-2 times per day

Eats lunch independently with no assistance in getting lunch sack, getting food out of container, putting food container away

Comes to work on an average of 5 times per week

Is able to take care of toileting needs independently with no accidents

CHAPTER V

SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

This study was conducted to determine the entry level skills that are required for admission to selected North Dakota programs for the vocational education of the severely handicapped. It was also designed to determine the articulation, if any, between nationwide provocational training programs' exit requirements and the North Dakota programs' entry requirements. This was done to determine whether or not the prevocational programs were training their students to possess the skills necessary to be admitted to a vocational program. Another purpose was to propose a model of service delivery for the vocational education of the severely handicapped in North Dakota.

The research utilized an instrument developed by Dennis E. Mithaug and others for assessing entry-level requirements of sheltered workshops, development centers, and activity centers. Two forms of this instrument were used. The original instrument was administered to selected North Dakota programs; and a 2-page version, that was item-analyzed to be a representative sample of the longer form, was mailed to the prevocational programs nationwide. The respondents were asked to check each particular skill that was required, either as an exit skill from a prevocational program nationwide or for entry into one of North Dakota's vocational programs for the severely handicapped.

The nationwide prevocational programs were also asked to provide some demographic data regarding the ages of students served, the location of the program, the services offered, and the exit or placement options available after the student has completed the program.

The information was keypunched on computer cards and frequency distributions were obtained using the Statistical Package for the Social Sciences (SPSS). Rank ordered mean scores of skills were derived from the frequency distributions for: the prevocational training programs nationwide, the North Dakota activity centers, the North Dakota vocational training programs, the North Dakota sheltered employment training programs, and a composite of all the North Dakota programs that participated in the study.

It was pointed out in Chapter II that although considerable research has been done to address the vocational needs of the handicapped, there has been very little done to meet the needs of the severely handicapped. Perhaps this is because the expansion of services to the severely handicapped was not specifically provided for until the Rehabilitation Act of 1973 and the education of the severely handicapped was specified for the first time as recently as the 1976 Education of All Handicapped Children Act, P.L. 94-142. As the severely handicapped children are assimilated into the public schools, the volume of research and professional writing in the area of vocational education for the severely handicapped should increase and provide assistance for the professionals working with these students.

Summary of Findings

Of the 55 Special Needs Supervisors contacted, 33 (60%) responded in some way. Of the 170 surveys sent to programs thus identified, 118 (69.4%)

provided some information. Of this number 95 programs in 29 states sent usable data (See Figure 2, page 30).

The responses from all 95 programs providing data show that more than 85% of them serve students who range in age from 16-22. Approximately half (48.9%) serve students aged 12-16 years. This is a predictable response in light of the fact that many schools don't provide vocational education courses until at least junior high school. The small number of programs serving those over 22 (34%) is to be expected also because P.L. 94-142 only requires educational services up to that age.

The most frequent location of these programs was in the public school (51.5%). This fact leads one to speculate why there are not even more handicapped students being served in the public schools.

By far the most frequently offered services were prevocational training (78.7%), vocational training (77.7%), and evaluation (73.4%).

Students from these vocational programs for the handicapped were placed most often in competitive employment (85.1%), or part-time employment (62.8%). (See Figure 3, page 33).

Of the 95 total programs participating in the study, 51 were determined to be serving the severely handicapped. Of this number, 49 programs in 23 states completed the surveys.

As in the programs serving the handicapped, most of those serving the severely handicapped reported that they served those students aged 16-22 years (86.2%). Again, about half (47%) serve 12-16 year olds and a smaller number (39.2%) serve students over age 22.

There was less consensus regarding where the programs for the severely handicapped were located. The largest number of programs reported that they were located in public schools, but this was only 39.2%.

Again, the most frequently mentioned services were prevocational training (82.3%), vocational training (80.3%), and evaluation (74.5%).

Placement options following completion of these programs for the severely handicapped that were listed most frequently were competitive employment (82.3%) and sheltered employment (78.4%). (See Figure 5, page 37). These findings regarding the placement of students who have completed a vocational program for the severely handicapped could lead to speculation that there is confusion about the definition of the severely handicapped. It does not seem likely that those who fit the definition as it appeared in the Federal Register (See Definition 5, page 7) can go directly from a program for the severely handicapped into competitive employment, but placement in a sheltered employment situation does seem to be a likely option for the severely handicapped.

Although there is considerable agreement between the prevocational programs nationwide regarding exit skills and North Dakota's vocational programs' entry skills; i.e., they both require a number of independent living skills, communication skills, and certain worker behaviors (See Table 28, page 71), there are also a number of discrepancies between what the prevocational programs nationwide train their students to do before they exit and what the North Dakota programs feel students should be able to do before they are admitted.

For example, prevocational programs nationwide train their students to possess a number of specific work-related behaviors (See Table 26, page 70) which the North Dakota vocational programs do not require as an entry criteria. Conversely, the North Dakota vocational programs want their prospective students to possess a number of self-help and independent living skills (See Table 27, page 70) which the prevocational programs nationwide do not mention as part of their training plans or necessary skills for exit. This leads one to suppose that the prevocational programs would be well advised to train the maximum number of independent living skills possible to their clients and perhaps reduce their emphasis on work skills. The North Dakota vocational programs would then have virtually independent clients to whom they could teach the job-related behaviors which were most appropriate for the jobs into which they might be placed upon completion of the program.

Conclusions

The following conclusions are based on the findings reported in Chapter IV of this research study and from observations made during the development of this study:

1. There are relatively few vocational training programs for the preparation of the severely handicapped for employment. Only about half of the programs that participated in the study were determined by the researcher to actually be serving the severely handicapped as defined in the Federal Register.

2. There is some confusion among those working with the handicapped regarding such terms as handicapped, severely handicapped, prevocational training, vocational training, etc. This was evidenced by the fact that many of the prevocational training programs were serving those students who could be described as "handicapped" by the Federal Register definition, but not "severely handicapped" and yet they referred to their students as severely handicapped. The placement of students completing a

program for the severely handicapped directly into competitive employment (by 82.3% of the programs) also exemplifies this confusion about definitions.

3. There needs to be a greater degree of articulation between the prevocational training programs for the severely handicapped and the vocational programs for this same population. It appears that the prevocational programs are training their students to have skills that the vocational programs don't care if they possess, and yet they are not training certain independent living skills that the vocational programs require as a criteria for admission.

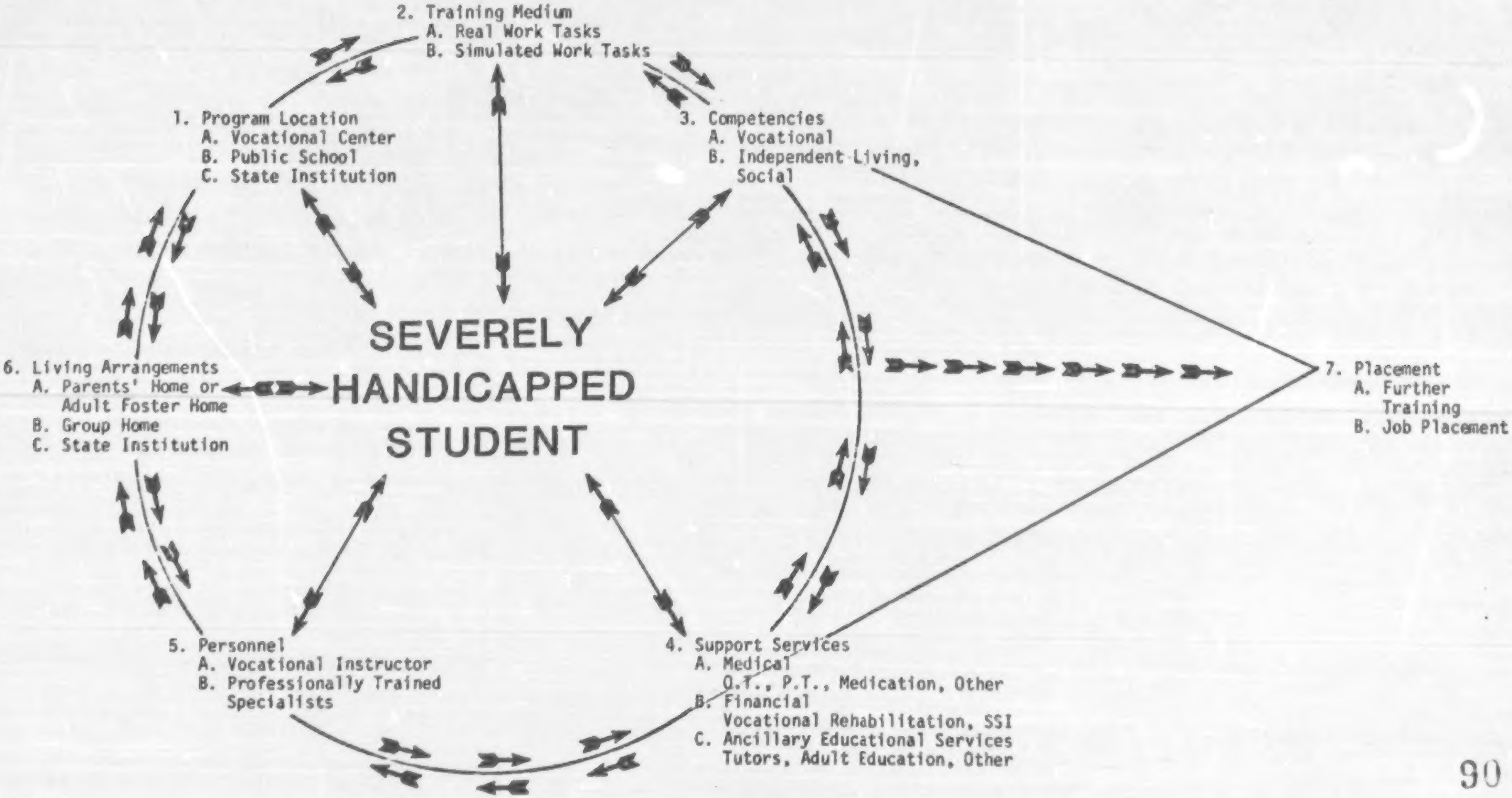
4. From the comments made by the staffs of the participating programs, more than from the data collected, there seems to be little structured agreement regarding what were the criteria for admission to the various programs. Many of the programs noted that they have only vague general statements as to what were entry level skills. Two of the activity centers returned the surveys uncompleted because they said they received no government funding and admitted any person in the community "who needed their services."

5. Although vocational training programs had more exacting requirements than activity centers, and sheltered employment programs were more demanding than vocational training programs; they all require that their clients be able to eat, dress, and attend to toileting needs independently.

6. One of the purposes of this study and one of the requests made by the State Board for Vocational Education was to propose a model of service delivery for the vocational education of the severely handicapped in North Dakota. Figure 6 illustrates the model proposed for this service delivery.

FIGURE 6

PROPOSED MODEL OF SERVICE DELIVERY
FOR THE VOCATIONAL EDUCATION OF THE SEVERELY HANDICAPPED IN NORTH DAKOTA


2. Training Medium
A. Real Work Tasks
B. Simulated Work Tasks
1. Program Location
A. Vocational Center
B. Public School
C. State Institution
3. Competencies
A. Vocational
B. Independent Living, Social
6. Living Arrangements
A. Parents' Home or Adult Foster Home
B. Group Home
C. State Institution
SEVERELY HANDICAPPED STUDENT
7. Placement
A. Further Training
B. Job Placement
5. Personnel
A. Vocational Instructor
B. Professionally Trained Specialists
4. Support Services
A. Medical
O.T., P.T., Medication, Other
B. Financial
Vocational Rehabilitation, SSI
C. Ancillary Educational Services
Tutors, Adult Education, Other

The model utilizes a continuum of services/people/things revolving around the center which is the severely handicapped student. The idea of the diagram is to illustrate that there is a free flow of information between and among all the component parts and the severely handicapped student. The theory is that all parts of the circle must support their weight, in terms of assistance to the severely handicapped, or the whole thing will collapse on the center, the student. The placement component is an outcome of the continuum.

This study identified a number of competencies required by a group of selected North Dakota vocational programs for the severely handicapped as criteria for admission. Among them were a large number of self-help and independent living skills and a lesser number of worker behaviors. The model is proposed in an effort to provide the sending agencies with a frame of reference for preparing their students to enter these North Dakota facilities.

This could be considered a model for prevocational education of the severely handicapped if they continue to further vocational training, but it can also be construed as a model of vocational education if the students are placed directly on jobs. There were only three prevocational training programs for the severely handicapped identified by North Dakota's Special Needs Supervisor--at the School for the Deaf, the School for the Blind, and at the Valley City Vocational Center. Therefore, it seemed appropriate to address these prevocational needs and the competencies identified by the North Dakota vocational programs in the model.

The following discussion regarding the component parts of the model will attempt to offer options utilizing what currently exists in North Dakota, addressing particular needs, and pointing out anticipated problems of implementation.

1. Program location should, if at all possible, be a vocational center. There are a number of these facilities located throughout North Dakota and they would allow the severely handicapped to be served near to their own homes or place of residence. They also are likely to be best equipped to provide realistic training. Some problems that could arise may be the need to individualize everything for a severely handicapped student; scheduling difficulties if the students were not mainstreamed, but rather an entire group of severely handicapped were taught at the same time; and physical modifications.

The public school would be a second, fairly acceptable choice. This program location would also allow the students to be served near their own homes. They may or may not have as extensive vocational offerings as the vocational centers, and they too could have difficulties individualizing for each student, scheduling, and modifying the environment.

The institution would be the last choice on the model, but would be a better choice than having no vocational education for the severely handicapped at all. Another consideration is that many of the severely handicapped will continue to be institutionalized and this may, in fact, be the least restrictive environment for them. If this is the case, we must meet their needs where they are located. Some difficulties in serving them in this setting are that the institutions, as a group, have not regarded vocational education as a priority and they do not have extensive training facilities in this area. One advantage might be that although the institutions may not have extensive vocational staffs, they should have well-trained teachers for the disability area they are serving.

2. The training medium most appropriate should be real work tasks. The severely handicapped often have difficulty generalizing from one

experience to another, so it seems logical to train them in real work tasks. This may be accomplished through on-the-job training, subcontracting, and other options. This may be difficult to arrange for a student just beginning a program and one who has poorly developed vocational skills. Another difficulty is that subcontracting sometimes becomes an end in itself and does not continue to be a good training medium.

Simulated work tasks may be an appropriate substitute for real work tasks. This approach may allow the teacher to have better control over such variables as noise, distractions, number of co-workers, difficulty of task, etc. But any simulation is not real work and this may result in the student generalizing to the real work situation.

3. The competencies that need to be taught for entry into the selected North Dakota vocational programs are given in complete form in Appendices P through T and summarized in Tables 26 through 28. Generally, the vocational competencies should be taught where the vocational program is located--vocational centers, public schools, or institutions. Independent living competencies should be taught where the student lives--in their parents' homes or adult foster homes, in group homes, or institutions. The social skills may need to be stressed both where the student lives and where the vocational program is located to provide as many exposures as possible. The appendices provide very specific entry skills for each level of vocational program in North Dakota--activity centers, vocational training programs, and sheltered employment program--so the prevocational programs could be based on the skills needed to enter each type of setting.

4. Some support services that may be necessary may include such medical services as occupational therapy, physical therapy, medication,

etc. Vocational Rehabilitation and Supplementary Security Income may be needed to provide financial assistance and such ancillary educational services as tutors and adult education may be needed. This listing is by no means comprehensive, but it intended to imply that any support services needed would be provided.

5. One of the keys to making the model work is the personnel that will work with the severely handicapped. The most critical person in this component is the vocational instructor. He/she has the knowledge of the work field, the equipment, and job requirements. One serious problem may be the attitudes or built-in biases of the vocational teachers. They may be unwilling to make the necessary modifications in the classroom or teaching techniques to accommodate the handicapped. They may be uneasy about having the severely handicapped in their classroom at all. Although some progress has been made regarding teachers' attitudes, it is safe to say that a "selling job" may need to be done to integrate the severely handicapped into the regular vocational classrooms. Other important personnel are professionally trained specialists in the particular disability of the students being served. If the students are blind, the teachers would specialize in teaching the blind. These teachers would provide expertise in the disability area to assist the vocational teacher.

6. The living arrangements available in a rural state like North Dakota are numerous. The ideal situation would be with the severely handicapped student living with his/her parents or in a foster home with a family atmosphere. This would provide an opportunity for individual attention, occasions for learning the independent living and social skills which are part of the model, and generally, the least restrictive environment possible.

Group homes with some supervision may be an appropriate alternative for those who cannot live completely independently. This provides the residents with a more "normal" group of peers than if they were in the institution, but does not allow for the individual attention they would get if they lived in their own home.

Institutions again are a last choice as a living arrangement option. They do allow students to be cared for and receive a large number of services, but they cannot provide the individualization or the "normalcy" that comes from living in your own home or in a group home.

7. Placement is shown in the diagram as the outcome or result of the continuum. Without the placement options of further training or job placement, the severely handicapped could go around in the circle of the model indefinitely without progressing to another level of functioning. Further training may mean progressing from an activity center to vocational training or from sheltered employment to competitive work. The ideal is to assist the student along the way to maximum independence.

Recommendations

The following recommendations are made by the researcher based on the conclusions drawn from the data obtained through the survey and from observations made during the development of this study:

1. The severely handicapped should be served in the public schools in North Dakota. The facilities needed, the services identified and the placement options mentioned by the respondents in this study seem to support this idea.

2. Within each category of training; i.e., activity centers, vocational training, and sheltered employment, there should be established some common criteria for admission.

3. Serious consideration should be given to implementing the model of service delivery for the vocational education of the severely handicapped in North Dakota which is discussed in the preceding section.

4. A pilot study should be conducted integrating the severely handicapped in North Dakota into the regular vocational education classroom.

5. Another research study to determine effective teaching methods and materials for the severely handicapped would supplement the findings of this study.

6. Professionals working in prevocational training programs and those involved with vocational training programs should communicate with one another so they could achieve some understanding regarding the skills necessary for the severely handicapped to progress from one level of training to the next.

7. Considerably more research is needed to determine the most appropriate (least restrictive) environment for the severely handicapped with various handicapping conditions.

8. Teachers and others who work with the severely handicapped should make every effort to keep up with changes in terminology, services, and placement options so that they can draw on other professionals' expertise in these areas.

APPENDIX A

LETTER TO STATE SPECIAL NEEDS SUPERVISORS

A-1

The University of North Dakota
GRAND FORKS 58201

DEPARTMENT OF BUSINESS AND VOCATIONAL EDUCATION TELEPHONE: (701) 777-2517

September 19, 1980

Mr. Clide D. Cassity
Supervisor of Special Needs
State Board for Vocational Education
State Office Building
900 East Boulevard
Bismarck, ND 58505

Dear Mr. Cassity:

The Vocational Education Department at the University of North Dakota is conducting a survey to determine the types and kinds of services and delivery systems utilized for the severely handicapped. The plan is to assess select models of service delivery to the handicapped nationwide and then to design and propose a model of service delivery for Vocational Education of the severely handicapped in North Dakota.

We would appreciate it very much, therefore, if you would forward to us the names and addresses of any programs in your state for the severely handicapped which are funded through Vocational Education-Special Needs monies. The Federal Register defines severely handicapped as "those who because of the intensity of their physical, mental, or emotional problems need educational, social, psychological, and medical services beyond those which are traditionally offered by regular and special educational programs, in order to maximize their full potential for useful and meaningful participation in society and for self-fulfillment." The federal guidelines list the following handicapping conditions: educable and trainable mentally retarded; learning disabled; seriously emotionally disturbed; orthopedically handicapped; speech impaired; visually handicapped; hearing impaired; other health impaired; and multi-handicapped.

Thank you very much for taking a few minutes of your time to send us the names and addresses of the contact persons of such programs in your state, and thereby contributing valuable information to our study. Please return the information in the addressed, postage-paid envelope by October 15. When we have completed our model of service delivery, we will be happy to send you a copy for your use as a reference or for possible use in your state.

Sincerely,

Roberta Barta
Graduate Research Assistant

George F. Zenk, Jr., Coordinator
Vocational Education/Special Needs

Enc.

APPENDIX B

FOLLOW-UP LETTER TO STATE SPECIAL NEEDS SUPERVISORS

B-1

The University of North Dakota
GRAND FORKS 58201

DEPARTMENT OF BUSINESS AND VOCATIONAL EDUCATION TELEPHONE: (701) 777-2517

Recently you received a request from the Vocational Education Department at the University of North Dakota asking for a list of names and addresses of programs for the severely handicapped in your state which are funded by Vocational Education-Special Needs monies. If you have already mailed us that information, please accept my thanks. If you have not, please take a few minutes to forward that information to me in the enclosed postage-paid envelope. It will be extremely valuable to us in our search for a model of service delivery for the vocational education of the severely handicapped in North Dakota.

We will, of course, be happy to send you a copy for your use as a reference when we have completed our project. Thanks again!

Sincerely,

Roberta Barta
Graduate Research Assistant

Enc.

APPENDIX C

SECOND FOLLOW-UP LETTER TO STATE SPECIAL NEEDS SUPERVISORS

C-1

The University of North Dakota
GRAND FORKS 58201

DEPARTMENT OF BUSINESS AND VOCATIONAL EDUCATION TELEPHONE: (701) 777-2517

SUBJECT: SECOND FOLLOW-UP OF SURVEY ON VOCATIONAL EDUCATION FOR THE SEVERELY HANDICAPPED

Recently you received a request from the Vocational Education Department at the University of North Dakota asking for a list of names and addresses of programs for the severely handicapped in your state which are funded by Vocational Education-Special Needs monies. If your state does not have any programs for the severely handicapped or they are funded by some other monies, we would like to know that too.

If you have already mailed us that information, please accept my thanks! If not, please take a few minutes to forward that information to me in the enclosed postage-paid envelope. Please feel free to use the back of this letter for your response which will be very valuable for our research project. We would appreciate your reply by December 1. Thanks again!

Sincerely,

Roberta Barta
Graduate Research Assistant

Enc.

APPENDIX D

COVER LETTER FOR ORIGINAL MAILING OF QUESTIONNAIRE

D-1

The University of North Dakota
GRAND FORKS 58201

DEPARTMENT OF BUSINESS AND VOCATIONAL EDUCATION TELEPHONE: (701) 777-2517

The State Director for Special Needs, in an effort to assist us with a research project, has sent us your name as one of the programs in your state serving the severely handicapped. The Federal Register defines severely handicapped as "those who because of the intensity of their physical, mental, or emotional problems need educational, social, psychological, and medical services beyond those which are traditionally offered by regular and special educational programs, in order to maximize their full potential for useful and meaningful participation in society and for self-fulfillment."

The Vocational Education Department at the University of North Dakota is conducting a survey to determine the types and kinds of services and delivery systems utilized for the severely handicapped. The plan is to assess select models of service delivery to the handicapped nationwide and then to design and propose a model of service delivery for the vocational education of the severely handicapped in North Dakota.

We would appreciate it, therefore, if you would take a few minutes to fill out the enclosed questionnaires with information regarding your program. The top form simply asks for some demographic information about your facility. The two questionnaires are similar but short, and we ask that you fill them both out so we can cross-correlate the data. This will contribute a great deal of valuable information to our study.

Thank you very much for your assistance with our research! Please return the forms in the enclosed postage-paid envelope. When we have completed our model of service delivery, a copy will be available with your state director for your inspection.

Sincerely,

Roberta Barta
Graduate Research Assistant

George F. Zenk, Jr., Coordinator
Vocational Education/Special Needs

Enc.

APPENDIX E

SHORT MITHAUG QUESTIONNAIRE

Please check the training objectives or skills you desire your students to have when they exit from your program.

I. WORKER BEHAVIOR

____ 1. Participate in work environments for 6-hour periods
2. Move safely about shop by:
____ a. Walking from place to place
____ b. Identifying and avoiding dangerous areas
____ c. Wearing safe work clothing
____ 3. Work continuously at a job station for 1-2 hour periods
____ 4. Learn new tasks when supervisor explains by modeling
____ 5. Come to work on an average of 5 times per week
____ 6. Correct work on task after the second correction
____ 7. Leave job station inappropriately no more than 1-2 times per day
____ 8. Want to work for money/sense of accomplishment
____ 9. Display or engage in major disruptive behavior no more than 1-2 times per week
____ 10. Understand work routine by not displaying disruptive behavior during routine program changes
11. Continue to work without disruptions when:
____ a. Supervisor is observing
____ b. Fellow worker is observing
____ c. Stranger is observing
____ 12. Display or engage in minor disruptive behavior no more than 1-2 times per week
13. Adapt to new work environment with normal levels of:
____ a. Productivity in 1-5 days
____ b. Contacts with supervisors in 30-60 minutes
____ 14. Complete repetitive tasks involving 1 step at 95% accuracy
____ 15. Work alone without disruptions for 15-minute periods with no contacts from supervisor
____ 16. Deviate from shop rules no more than 1-2 times per week
____ 17. Work at job station with no more than 1-2 work disruptions per day
18. Work in a group situation and increase production:
____ a. When supervisor asks to work faster
____ b. When supervisor asks to produce more than previously
____ c. When supervisor asks to complete work by specified time

____ 19. Learn to minimum proficiency a new job with one step in 0-15 minutes
____ 20. Work alone without disruptions for 30-minute periods with 1-2 contacts from supervisor
21. Work alone and increase production:
____ a. When supervisor asks to work faster
b. When supervisor asks to produce more than previously
____ c. When supervisor asks to complete work by specified time

II. SOCIAL/COMMUNICATION SKILLS

____ 22. Communicate basic needs such as thirst, hunger, sickness, pain, toileting conditions
23. Communicate basic needs receptively by means of:
____ a. Verbal expression
____ b. Signs
____ c. Gestures
24. Communicate basic needs expressively by means of:
____ a. Verbal expression
____ b. Gestures

____ 25. Respond to instruction requiring immediate compliance within 0-30 seconds

26. Respond appropriately to safety signals given:
- ____ a. Verbally
- ____ b. Through signs
- ____ c. Through signals

27. Initiate contact with supervisor when:
- ____ a. Cannot do job
- ____ b. Runs out of materials
- ____ c. Finishes job
- ____ d. Feels too sick/tired to work
- ____ e. Needs drink/restroom
- ____ f. Makes mistake

____ 28. Initiate contact inappropriately with strangers no more than 1-2 times per day

____ 29. Respond appropriately to social contacts on out out of two occasions

III. SELF HELP/GROOMING SKILLS

30. Maintain proper grooming by:
- ____ a. Dressing appropriately for work
- ____ b. Dressing appropriately after using restroom
- ____ c. Cleaning self before coming to work
- ____ d. Cleaning self after using the restroom
- ____ e. Cleaning self after eating lunch
- ____ f. Eating food appropriately at lunch
- ____ g. Displaying proper table manners at lunch

31. Reach place of work by means of:
- ____ a. Company-sponsored vehicle
- ____ b. Own arrangement

32. Maintain personal hygiene by:
- ____ a. Shaving regularly
- ____ b. Keeping teeth clean
- ____ c. Keeping hair combed
- ____ d. Keeping nails clean
- ____ e. Using deodorant

33. Eat lunch independently with no assistance in:
- ____ a. Getting lunch sack/container
- ____ b. Getting food out of container
- ____ c. Pouring liquid into cup/glass
- ____ d. Putting food back into container
- ____ e. Putting food container away

____ 34. Take care of toileting needs independently with no accidents per month

APPENDIX F

DATA SHEET REQUESTING DEMOGRAPHIC INFORMATION

VOCATIONAL EDUCATION-SPECIAL NEEDS FUNDED PROGRAMS FOR SEVERELY HANDICAPPED

Name________________________________ State________________________________

University Affiliation, if any____

CHECK THE ITEMS IN EACH COLUMN WHICH DESCRIBE YOUR VOCATIONAL EDUCATION-SPECIAL NEEDS PROGRAM FOR THE SEVERELY HANDICAPPED.

Population Served with Voc. Ed. Special Needs Funds
(PLEASE CHECK ALL THAT APPLY)

______ 12-16 years

______ 16-22 years

______ over 22 years

Please Indicate Where Students Go After Completion of Your Program
(PLEASE CHECK ALL THAT APPLY)

______ Sheltered Workshops

______ Sheltered Employment

______ Part time Employment

______ Competetive Employment

______ Unemployed

______ Activity Center-Adult Day Care Center

______ Further Vocational Training

______ Other (Please specify)
____

Program Located In
(PLEASE CHECK ALL THAT APPLY)

______ Public School

______ Private School

______ Sheltered Workshop

______ Vocational School

______ Junior College

______ State Institution

______ Other (Please specify)
____

Types of Services Offered
(PLEASE CHECK ALL THAT APPLY)

______ Evaluation

______ Prevocational Training

______ Career Awareness

______ Vocational Training

______ Research

______ Special Equipment (Please specify)
____

______ Other (Please specify)
____

F-1

Please explain in a few words the purpose of your program or attach a brochure

____

____

____

____

THANK YOU VERY MUCH FOR YOUR ASSISTANCE!

APPENDIX G

INSTRUCTIONS REGARDING UTILIZATION OF VOCATIONAL EDUCATION/SPECIAL NEEDS MONIES

G-1

The University of North Dakota
GRAND FORKS 58201

DEPARTMENT OF BUSINESS AND VOCATIONAL EDUCATION
TELEPHONE: (701) 777-2517

October 10, 1980

Dear survey participant:

It is important for the purposes of our research that we know which programs are funded by Vocational Education-Special Needs monies. As the data has been returned to us, it has become apparent that a misunderstanding regarding this consideration may have developed. Therefore, if your program does not utilize any Vocational Education-Special Needs monies, please return the survey forms uncompleted in the enclosed envelope.

Thank you very much for your assistance!

Sincerely,

Roberta Barta

Roberta Barta
Graduate Research Assistant

APPENDIX H

CLARIFICATION OF INSTRUCTIONS REGARDING UTILIZATION OF VOCATIONAL EDUCATION/SPECIAL NEEDS MONIES

H-1

The University of North Dakota
GRAND FORKS 58201

DEPARTMENT OF BUSINESS AND VOCATIONAL EDUCATION TELEPHONE: (701) 777-2517

October 10, 1980

Dear Survey Participant:

It is important for the purposes of our research that we know which programs are currently being funded by Vocational Education-Special Needs monies or may have utilized Vocational Education-Special Needs monies for development or implementation. Therefore, if your program does not or has not utilized any Vocational Education-Special Needs monies, please note that fact at the bottom of the following page, which asks for demographic information about your program. Please return the forms in the enclosed envelope.

Thank you very much for your assistance!

Sincerely,

Roberta Barta
Graduate Research Assistant

APPENDIX I

LISTING OF NORTH DAKOTA FACILITIES SURVEYED AND SERVICES OFFERED

Facility, Address, Contact Person	Programs Offered
Upper Missouri ARC Opportunity Center 1201 Ninth Ave. N.W., Box 180 Williston, ND 58801 Vivian Kalmik	Activity Center
Minot Vocational Adjustment Workshop 1303 Valley Street Minot, ND 58701 Jerry Pinks	Activity Center Vocational Training Sheltered Employment
Lake Region Activity Center 1110 - 2nd Ave. East Devils Lake, ND 58301 Ms. Donna Salveson	Activity Center
Agassiz Enterprises 2105 Gateway Drive Grand Forks, ND 58201 Carol Steinke	Activity Center Vocational Training Sheltered Employment
Evaluation and Training Center 424 Ninth Ave. South Fargo, ND 58102 Paul Ornberg	Vocational Training Sheltered Employment
Svee Rehabilitation Home 1307 - 11th St. South Fargo, ND 58102 Paul Griffin	Vocational Training
Developmental Work Activity Center 108 South 8th St. Fargo, ND 58102 Patty Gross	Activity Center
Mainstream, Inc. Fessenden, ND 58438 Mrs. John Schmidt	Activity Center
Open Door, Inc. 320 Central Avenue South Valley City, ND 58072 Jeffrey Peterson	Activity Center
Alpha, Inc. Box 824 Jamestown, ND 58401 Dennis Folgison	Activity Center
Pride Industries 1223 South 12th St. Bismarck, ND 58501 Rich Gaurke	Activity Center Vocational Training Sheltered Employment

APPENDIX J

COVER LETTER TO NORTH DAKOTA PROGRAMS

The University of North Dakota
GRAND FORKS 58201

DEPARTMENT OF BUSINESS AND VOCATIONAL EDUCATION
TELEPHONE: (701) 777-2517

November 20, 1980

At the request of the State Board for Vocational Education, the Vocational Education Department at the University of North Dakota is conducting a survey to determine the types and kinds of services and delivery systems utilized for the severely handicapped. The plan is to assess select models of service delivery to the handicapped nationwide and then to design and propose a model of service delivery for the vocational education of the severely handicapped in North Dakota.

You could assist us a great deal if you would fill in the enclosed questionnaires with information regarding the skills needed for entry into your program. We hope to establish some common entry level skills which are required by all the programs in the state, which can then be transmitted to the referral agencies. They in turn can train their students in the specific skills that are needed for entry into the programs in which their students may be placed.

As I mentioned in our telephone conversation, feel free to call either of us any time at 777-3513 if you have any questions or if you would like clarification of any items. Please return the questionnaires in the enclosed post paid envelope by December 5. Thank you very much for your help!

Sincerely,

Roberta Barta
Graduate Research Assistant

George F. Zenk, Jr., Coordinator
Vocational Education/Special Needs

Enc.

APPENDIX K

LONG MITHAUG QUESTIONNAIRE

FOR ENTRY INTO YOUR FACILITY (FOR VOCATIONAL TRAINING, SHELTERED EMPLOYMENT OR ACTIVITY CENTER) IT IS IMPORTANT THAT A CLIENT SHOULD:

Please Check if Important Using the Legend on the Instruction Page

1. Recite verbally upon request:
________ a. Full name
________ b. Home address
________ c. Telephone
________ d. Age
________ e. Name of employer
________ f. Address of employer

2. Read and/or write:
________ a. 1-2 word sentences
________ b. 3-5 word sentences
________ c. 6-8 word sentences
________ d. 9-15 word sentences
________ e. 15 or more word sentences

3. Initiate and/or respond verbally in:
________ a. 1-2 word sentences
________ b. 3-5 word sentences
________ c. 6-8 word sentences
________ d. 9-15 word sentences
________ e. 15 or more word sentences

4. Be able to communicate such basic needs as:
________ a. Thirst
________ b. Hunger
________ c. Sickness
________ d. Pain
________ e. Toileting necessities

5. Be able to communicate basic needs:
a. Expressively by means of:
________ (1) Verbal expression
________ (2) Finger spelling
________ (3) Signs
________ (4) Gestures

b. Receptively by means of:
________ (1) Verbal expression
________ (2) Finger spelling
________ (3) Signs
________ (4) Gestures

6. Count items:
a. Independently (without aides) to:
________ (1) 10
________ (2) More than 10

b. With aid of a jig to:
________ (1) 10
________ (2) More than 10

7. Have basic arithmetic skills to:
________ a. Add
________ b. Subtract
________ c. Multiply
________ d. Divide

8. Read and follow community signs such as Stop,
________ Go, Bus, Caution, Walk, Wait, etc.

9. Tell and follow time:
________ a. On the hour
________ b. On the half hour
________ c. On the quarter hour
________ d. On the five minutes
________ e. On the minute

10. Dial the telephone and speak to:
________ a. Relatives at home
________ b. Police department
________ c. Employer

FOR ENTRY INTO YOUR FACILITY (FOR VOCATIONAL TRAINING, SHELTERED EMPLOYMENT OR ACTIVITY CENTER) IT IS IMPORTANT THAT A CLIENT SHOULD:

________ d. Fire department
________ e. Ambulance
________ f. Operator
________ g. Anyone

11. Use the telephone book to look up names and numbers
____

12. Answer the telephone appropriately:
________ a. For self
________ b. For others (to take messages)

13. Understand the purpose of money:
________ a. To want to work for money
________ b. To use money to purchase items
________ c. To make change
________ d. To operate vending machines

14. Maintain proper grooming by:
________ a. Dressing appropriately for work
________ b. Dressing appropriately after using restroom
________ c. Cleaning self before coming to work
________ d. Cleaning self after using the restroom
________ e. Cleaning self after eating lunch
________ f. Eating food appropriately at lunch
________ g. Displaying proper table manners at lunch

15. Maintain personal hygiene by:
________ a. Shaving regularly
________ b. Keeping teeth clean
________ c. Keeping hair combed
________ d. Keeping nails clean
________ e. Using deodorant

16. Be able to each lunch:
a. Independently with no assistance in:
________ (1) Getting lunch sack or container
________ (2) Getting food out of container
________ (3) Eating food in appropriate order (sandwich before dessert)
________ (4) Pouring liquid into cup or glass
________ (5) Putting food remainder back in container when finished
________ (6) Putting lunch container away

b. Semi-independently with some assistance in:
________ (1) Getting lunch sack or container
________ (2) Getting food out of container
________ (3) Eating food in appropriate order (sandwich before dessert)
________ (4) Pouring liquid into cup or glass
________ (5) Putting food remainder back in container when finished
________ (6) Putting lunch container away

17. Be able to take care of toileting needs:
a. Independently with:
(1) No accidents
________ (2) 1-2 accidents per month
________ (3) 3-4 accidents per month
________ (4) 5-10 accidents per month

b. Semi-independently with aide taking him regularly to the restroom with:
________ (1) No accidents
________ (2) 1-2 accidents per month
________ (3) 3-4 accidents per month
________ (4) 5-10 accidents per month

18. Be able to ride the public transit to and from work
____

FOR ENTRY INTO YOUR FACILITY (FOR VOCATIONAL TRAINING, SHELTERED EMPLOYMENT OR ACTIVITY CENTER) IT IS IMPORTANT THAT A CLIENT SHOULD:

19. Be able to reach place of work by means of:
_______ a. Public transportation
_______ b. Company-sponsored vehicle
_______ c. Own arrangement

20. Be absent from work no more than:
_______ a. An average of zero days per week
_______ b. An average of once per week
_______ c. An average of twice per week
_______ d. An average of three times per week
_______ e. An average of four times per week

21. Appear at job station on time and without prompting:
_______ a. In the morning when work begins
_______ b. After each coffee break
_______ c. After lunch

22. Discontinue work at job station at appropriate time without:
a. Prompting from supervisor
_______ (1) For scheduled coffee breaks
_______ (2) For scheduled lunch periods
_______ (3) At end of work day

b. Prompting from fellow workers
_______ (1) For scheduled coffee breaks
_______ (2) For scheduled lunch period
_______ (3) At end of work day

23. Understand work routine by:
_______ a. Not displaying disruptive behaviors when routine task or program changes occur
_______ b. Anticipating routine task or program changes by assisting in the change of materials
_______ c. Initiating task or program changes by replacing appropriate materials at scheduled change periods

24. Be able to keep his/her work station area neat by:
_______ a. Picking up materials dropped on floor in area
_______ b. Arranging work materials that become disorganized while working
_______ c. Putting work materials away after finishing task
_______ d. Keeping completed products separate from other work materials

25. Respond appropriately to safety signals when given:
_______ a. Verbally
_______ b. Through signs
_______ c. From signals (buzzers, bells, etc.)

26. Move safely about shop by:
_______ a. Walking from place to place
_______ b. Identifying and avoiding dangerous areas
_______ c. Wearing appropriately safe work clothes

27. Follow:
_______ a. 1-2 word instructions
_______ b. 3-5 word instructions
_______ c. 6-8 word instructions
_______ d. More than 8 word instructions

28. Follow instructions with words such as:
_______ a. In, on
_______ b. To your right, to your left
_______ c. Under, over, through
_______ d. Press, hold, twist

FOR ENTRY INTO YOUR FACILITY (FOR VOCATIONAL TRAINING, SHELTERED EMPLOYMENT OR ACTIVITY CENTER) IT IS IMPORTANT THAT A CLIENT SHOULD:

29. Respond appropriately and immediately after receiving:
________ a. Each instruction
________ b. 1 out of every 2 instructions
________ c. 1 out of every 5 instructions
________ d. 1 out of every 10 instructions

30. Remember to respond to an instruction that requires compliance after a specified time interval with:
a. No reminders for periods of:
________ (1) 1-5 minutes
________ (2) 5-10 minutes
________ (3) 10-20 minutes
________ (4) 20-30 minutes
________ (5) More than 30 minutes
b. One reminder for periods of:
________ (1) 1-5 minutes
________ (2) 5-10 minutes
________ (3) 10-20 minutes
________ (4) 20-30 minutes
________ (5) More than 30 minutes
c. Two or more reminders for periods of:
________ (1) 1-5 minutes
________ (2) 5-10 minutes
________ (3) 10-20 minutes
________ (4) 20-30 minutes
________ (5) More than 30 minutes

31. Respond to an instruction requiring immediate compliance within:
________ a. 0-30 seconds
________ b. 30-60 seconds
________ c. 60-90 seconds
________ d. 90-120 seconds
________ e. More than two minutes

32. Speak clearly enough to be understood by anyone on the:
________ a. First transmission
________ b. Second transmission
________ c. Third transmission
________ d. Fourth transmission
________ e. Fifth or more transmissions

33. Speak at the rate of:
________ a. 1-10 words per minute
________ b. 10-25 words per minute
________ c. Faster than 25 words per minute

34. Have gross motor coordination to walk:
________ a. To and from job station
________ b. To and from bus stop
________ c. To and from home

35. Have fine motor coordination to assemble large (2" x ½") nuts and bolts at:
________ a. 0-10% of normal rate
________ b. 10-20% of normal rate
________ c. 20-30% of normal rate
________ d. 30-50% of normal rate
________ e. Faster than 50% of normal rate

36. Be able to use small hand tools and office devices appropriately such as:
________ a. Screwdriver
________ b. Hammer
________ c. Saw
________ d. Hand drill
________ e. Pliers
________ f. Stapler
________ g. Tape dispenser
________ h. Scissors
________ i. Paper cutter
________ j. Pliers

K-4

FOR ENTRY INTO YOUR FACILITY (FOR VOCATIONAL TRAINING, SHELTERED EMPLOYMENT OR ACTIVITY CENTER) IT IS IMPORTANT THAT A CLIENT SHOULD:

37. Learn to work at new job tasks when supervisor explains by:
_____ a. Physically prompting
_____ b. Modeling (doing the task in front of client)
_____ c. Verbally describing how the task is to be done

38. Learn to minimum proficiency new job tasks that:
a. Involve 1 step in:
_____ (1) 0-15 minutes of instruction
_____ (2) 15-30 minutes of instruction
_____ (3) 1-6 hours of instruction
_____ (4) 6-12 hours of instruction
_____ (5) More than 12 hours of instruction
b. Involve 2 steps in:
_____ (1) 0-15 minutes of instruction
_____ (2) 15-30 minutes of instruction
_____ (3) 1-6 hours of instruction
_____ (4) 6-12 hours of instruction
_____ (5) More than 12 hours of instruction
c. Involve 3 to 5 steps in:
_____ (1) 0-15 minutes of instruction
_____ (2) 15-30 minutes of instruction
_____ (3) 1-6 hours of instruction
_____ (4) 6-12 hours of instruction
_____ (5) More than 12 hours of instruction
d. Involve 5 to 10 steps in:
_____ (1) 0-15 minutes of instruction
_____ (2) 15-30 minutes of instruction
_____ (3) 1-6 hours of instruction
_____ (4) 6-12 hours of instruction
_____ (5) More than 12 hours of instruction

39. Correct work on task after:
_____ a. First correction from supervisor
_____ b. Second correction from supervisor
_____ c. Third-fifth correction from supervisor
_____ d. Fifth-tenth correction from supervisor
_____ e. More than 10 corrections from supervisor

40. Match and sort items:
a. On 1 variable (e.g., only color, only size, or only shape) at:
_____ (1) 0-10% of normal rate
_____ (2) 10-20% of normal rate
_____ (3) 20-30% of normal rate
_____ (4) 30-50% of normal rate
_____ (5) Faster than 50% of normal rate

b. On 2 variables (e.g., color and size) at:
_____ (1) 0-10% of normal rate
_____ (2) 10-20% of normal rate
_____ (3) 20-30% of normal rate
_____ (4) 30-50% of normal rate
_____ (5) Faster than 50% of normal rate

c. On 3 variables (e.g., color, size, and shape) at:
_____ (1) 0-10% of normal rate
_____ (2) 10-20% of normal rate
_____ (3) 20-30% of normal rate
_____ (4) 30-50% of normal rate
_____ (5) Faster than 50% of normal rate

41. Be able to complete repetitive tasks previously learned to proficiency:
a. Involving 1 step with less than:
_____ (1) 1 error for every 20 products
_____ (2) 1 error for every 10 products
_____ (3) 2-3 errors for every 10 products
_____ (4) 4-5 errors for every 10 products
_____ (5) 5 or more errors for every 10 products

b. Involving 2 steps with less than:
_____ (1) 1 error for every 20 products

FOR ENTRY INTO YOUR FACILITY (FOR VOCATIONAL TRAINING, SHELTERED EMPLOYMENT OR ACTIVITY CENTER) IT IS IMPORTANT THAT A CLIENT SHOULD:

________ (2) 1 error for every 10 products
________ (3) 2-3 errors for every 10 products
________ (4) 4-5 errors for every 10 products
________ (5) 5 or more errors for every 10 products

c. Involving 3 or more steps with less than:
________ (1) 1 error for every 20 products
________ (2) 1 error for every 10 products
________ (3) 2-3 errors for every 10 products
________ (4) 4-5 errors for every 10 products
________ (4) 5 or more errors for every 10 products

42. Be able to complete repetitive tasks previously learned to proficiency:

a. Involving 1 step at:
________ (1) 0-10% of normal rate
________ (2) 10-20% of normal rate
________ (3) 20-30% of normal rate
________ (4) 30-50% of normal rate
________ (5) Higher than 50% of normal rate

b. Involving 2 steps at:
________ (1) 0-10% of normal rate
________ (2) 10-20% of normal rate
________ (3) 20-30% of normal rate
________ (4) 30-50% of normal rate
________ (5) Higher than 50% of normal rate

c. Involving 3 or more steps at:
________ (1) 0-10% of normal rate
________ (2) 10-20% of normal rate
________ (3) 20-30% of normal rate
________ (4) 30-50% of normal rate
________ (5) Higher than 50% of normal rate

43. Maintain both quantity and quality production by not:
________ a. Increasing the number of products while at the same time increasing the number of mistakes per unit of time
________ b. Decreasing the number of products while at the same time decreasing the number of mistakes per unit of time

44. Be able to participate in work environment for periods of:
________ a. 1 hour
________ b. 2 hours
________ c. 3 hours
________ d. 4 hours
________ e. 5 hours
________ f. 6 hours

45. Work at job station continuously for:
________ a. 0-15 minutes
________ b. 15-30 minutes
________ c. 30-60 minutes
________ d. 1-2 hours
________ e. More than 2 hours

46. Not leave job station inappropriately during work period more than:
________ a. 0 times per day
________ b. 1-2 times per day
________ c. 3-5 times per day
________ d. 6-8 times per day
________ e. 9-15 times per day
________ f. 15 times per day

47. Continue working without disruptions when:
________ a. Supervisor is observing
________ b. Fellow workers are observing

FOR ENTRY INTO YOUR FACILITY (FOR VOCATIONAL TRAINING, SHELTERED EMPLOYMENT OR ACTIVITY CENTER) IT IS IMPORTANT THAT A CLIENT SHOULD:

________ c. Stranger is observing
________ d. Two strangers are observing
________ e. More than two strangers are observing
________ f. Being bothered by fellow workers
________ g. Other unusual occurrences happen

48. Work independently alone at table without discontinuing work more frequently than:
________ a. 0 times per day
________ b. 1-2 times per day
________ c. 3-5 times per day
________ d. 6-8 times per day
________ e. 9-15 times per day
________ f. More than 15 times per day

49. Work alone continuously without disruptions for:
a. A 15-minute period with:
________ (1) No contacts from supervisor
________ (2) 1-2 contacts from supervisor
________ (3) 3-5 contacts from supervisor
________ (4) 6-8 contacts from supervisor
________ (5) 9-15 contacts from supervisor
________ (6) More than 15 contacts from supervisor

b. A 30-minute period with:
________ (1) No contacts from supervisor
________ (2) 1-2 contacts from supervisor
________ (3) 3-5 contacts from supervisor
________ (4) 6-8 contacts from supervisor
________ (5) 9-15 contacts from supervisor
________ (6) More than 15 contacts from supervisor

c. A 60-minute period with:
________ (1) No contacts from supervisor
________ (2) 1-2 contacts from supervisor
________ (3) 3-5 contacts from supervisor
________ (4) 6-8 contacts from supervisor
________ (5) 9-15 contacts from supervisor
________ (6) More than 15 contacts from supervisor

d. A 2-hour period with:
________ (1) No contacts from supervisor
________ (2) 1-2 contacts from supervisor
________ (3) 3-5 contacts from supervisor
________ (4) 6-8 contacts from supervisor
________ (5) 9-15 contacts from supervisor
________ (6) More than 15 contacts from supervisor

50. Work in a group situation and increase his productivity:
________ a. On his own
________ b. When supervisor asks him to work faster
________ c. When supervisor asks him to produce more than that produced for the previous period
________ d. When supervisor asks his group to produce more than that produced for the previous period
________ e. When supervisor asks his group to complete the job by a specified time

51. Work alone and increase his productivity:
________ a. On his own
________ b. When supervisor asks him to work faster
________ c. When supervisor asks him to produce more than that produced for the previous period
________ d. When supervisor asks him to complete the job by a specified time

52. Increase his productivity in group or individual settings:
________ a. When supervisor threatens with loss of job

FOR ENTRY INTO YOUR FACILITY (FOR VOCATIONAL TRAINING, SHELTERED EMPLOYMENT OR ACTIVITY CENTER) IT IS IMPORTANT THAT A CLIENT SHOULD:

________ b. When supervisor threatens with pay cut
________ c. When supervisor offers bonus incentive
________ d. When supervisor provides immediate tangible incentives for completed work (money, tokens, food, candy, et.)

53. Initiate contact with supervisor when he:
________ a. Cannot do job
________ b. Runs out of materials to do job
________ c. Finishes job
________ d. Feels too sick or tired to continue working
________ e. Needs drink of water or to go to restroom
________ f. Makes a mistake on the job

54. Initiate contact with fellow worker when he:
________ a. Needs help on task
________ b. Needs task materials from fellow worker
________ c. Needs evaluation of work completed

55. Not initiate contact inappropriately with:
a. Coworkers (who are working) more frequently than:
________ (1) 0 times per day
________ (2) 1-2 times per day
________ (3) 3-5 times per day
________ (4) 6-8 times per day
________ (5) 9-15 times per day
________ (6) 15 or more times per day

b. With supervisor more frequently than:
________ (1) 0 times per day
________ (2) 1-2 times per day
________ (3) 3-5 times per day
________ (4) 6-8 times per day
________ (5) 9-15 times per day
________ (6) 15 or more times per day

c. Stranger in shop more frequently than:
________ (1) 0 times per day
________ (2) 1-2 times per day
________ (3) 3-5 times per day
________ (4) 6-8 times per day
________ (5) 9-15 times per day
________ (6) 15 or more times per day

56. Does not deviate from the shop rules (set down by the Supervisor) more frequently than:
________ a. 0 times per week
________ b. 1-2 times per week
________ c. 3-5 times per week
________ d. 6-8 times per week
________ e. 9-15 times per week
________ f. 15 or more times per week

57. Does not display or engage in:
a. Minor disruptive behaviors (e.g., interruptions) more frequently than:
________ (1) 0 times per week
________ (2) 1-2 times per week
________ (3) 3-5 times per week
________ (4) 6-8 times per week
________ (5) 9-15 times per week
________ (6) 15 or more times per week

b. Major disruptive behaviors (e.g., tantrums) more frequently than:
________ (1) 0 times per week
________ (2) 1-2 times per week
________ (3) 3-5 times per week
________ (4) 6-8 times per week
________ (5) 9-15 times per week
________ (6) 15 or more times per week

58. Work at job station with:
________ a. 0 work disruptions (client stops working) per day

FOR ENTRY INTO YOUR FACILITY (FOR VOCATIONAL TRAINING, SHELTERED EMPLOYMENT OR ACTIVITY CENTER) IT IS IMPORTANT THAT A CLIENT SHOULD:

________ b. 1-2 disruptions per day
________ c. 3-5 disruptions per day
________ d. 6-8 disruptions per day
________ e. 9-15 disruptions per day
________ f. More than 15 work disruptions per day

59. Respond appropriately to social contacts initiated by others on at least:
________ a. Every occasion
________ b. 1 out of every 2 occasions
________ c. 1 out of every 5 occasions
________ d. 1 out of every 10 occasions
________ e. 1 out of every 15 occasions

60. Have a good disposition and smile appropriately when contacted by:
a. The supervisor on:
________ (1) Every occasion
________ (2) 1 out of every 2 occasions
________ (3) 1 out of every 5 occasions
________ (4) 1 out of every 10 occasions
________ (5) 1 out of every 15 occasions

b. Fellow workers on:
________ (1) Every occasion
________ (2) 1 out of every 2 occasions
________ (3) 1 out of every 5 occasions
________ (4) 1 out of every 10 occasions
________ (5) 1 out of every 15 occasions

61. Be sociable on the job and initiate appropriate contacts with fellow workers:
________ a. 1-2 times per day
________ b. 3-5 times per day
________ c. 6-8 times per day
________ d. 9-15 times per day
________ e. More than 15 times per day

62. Adapt to new work setting with normal levels of
a. Productivity within a period of:
________ (1) 0-30 minutes
________ (2) 30-60 minutes
________ (3) 1-6 hours
________ (4) 1-5 days
________ (5) One week or more

b. Contacts with supervisor:
________ (1) 0-30 minutes
________ (2) 30-60 minutes
________ (3) 1-6 hours
________ (4) 1-5 days
________ (5) One week or more

63. Want to work for:
________ a. Money
________ b. Tokens
________ c. Edibles
________ d. Social approval
________ e. Sense of accomplishment

APPENDIX L

INSTRUCTIONS FOR NORTH DAKOTA ACTIVITY CENTERS

INSTRUCTIONS:

Please note the minimum skills that are necessary for entry into your activity center. IF SKILLS ARE NOT NECESSARY, PLEASE LEAVE BLANK.

Example:

For entry into your facility it is necessary that a client should:

1. Recite verbally upon request

___✓___ a. Full name (Necessary skill for activity center placement)
___✓___ b, Home address (Necessary skill for activity center placement)
_______ c, Telephone number (Not necessary skill for activity center placement)
___✓___ d. Age (Necessary skill for activity center placement)
_______ e. Name of employer (Not necessary skill for activity center placement)
_______ f. Address of employer (Not necessary skill for activity center placement)

PLEASE NOTE: The purpose of our study is to identify entry level skills necessary for entry into various training programs in North Dakota. This will enable referral agencies to train their clients to possess the skills necessary to facilitate entry into these programs.

APPENDIX M

INSTRUCTIONS FOR NORTH DAKOTA FACILITIES OFFERING VOCATIONAL TRAINING AND SHELTERED EMPLOYMENT

INSTRUCTIONS:

Please note the minimum skills that are necessary for entry into your program. IF SKILLS ARE NOT NECESSARY, PLEASE LEAVE BLANK.

As you have more than one kind of program, please indicate necessary skills for each using the following:

1 Vocational Training
2 Sheltered or Extended Employment

Example:

For entry into your facility it is necessary that a client should:

1. Recite verbally upon request

1,2 a. Full name (Necessary in both kinds of programs)
1,2 b. Home address (Necessary in both kinds of programs)
1 c. Telephone number (Necessary only for vocational training program)
2 d. Age (Necessary only for sheltered employment)
_____ e. Name of employer (Not necessary for either program)
_____ f. Address of employer (Not necessary for either program)

M-1

PLEASE NOTE: The purpose of our study is to identify entry level skills necessary for entry into various training programs in North Dakota. This will enable referral agencies to train their clients to possess the skills necessary to facilitate entry into these programs.

APPENDIX N

INSTRUCTIONS FOR NORTH DAKOTA FACILITIES WITH ONLY VOCATIONAL TRAINING PROGRAMS

INSTRUCTIONS:

Please note the minimum skills that are necessary for entry into your vocational training program.
IF SKILLS ARE NOT NECESSARY, PLEASE LEAVE BLANK.

Example:

For entry into your facility it is necessary that a client should:

1. Recite verbally upon request

___✓___ a. Full name (Necessary in vocational training program)
___✓___ b. Home address (Necessary in vocational training program)
___✓___ c. Telephone number (Necessary in vocational training program)
_______ d. Age (Not necessary in vocational training program)
___✓___ e. Name of employer (Necessary in vocational training program)
_______ f. Address of employer (Not necessary in vocational training program)

N-1

PLEASE NOTE: The purpose of our study is to identify entry level skills necessary for entry into various training programs in North Dakota. This will enable referral agencies to train their clients to possess the skills necessary to facilitate entry into these programs.

APPENDIX O

INSTRUCTIONS TO NORTH DAKOTA FACILITIES WITH ALL THREE PROGRAMS: ACTIVITY CENTERS, VOCATIONAL TRAINING AND SHELTERED EMPLOYMENT

INSTRUCTIONS:

Please note the minimum skills that are necessary for entry into your program. IF SKILLS ARE NOT NECESSARY, PLEASE LEAVE BLANK.

If you have more than one kind of program, please indicate requirements for each using the following:

1 Vocational Training
2 Sheltered or Extended Employment
3 Activity Center
✓ If the skill is required for all three programs

Example:

For entry into your facility it is necessary that a client should:

1. Recite verbally upon request

__✓__ a, Full name (Necessary in all three kinds of programs)
__✓__ b. Home address (Necessary in all three kinds of programs)
__1,2__ c. Telephone number (Necessary for vocational training, sheltered employment)
__3__ d. Age (Necessary only for activity center)
_____ e. Name of employer (Not necessary for any program)
_____ f. Address of employer (Not necessary for any program)

PLEASE NOTE: The purpose of our study is to identify entry level skills necessary for entry into various training programs in North Dakota. This will enable referral agencies to train their clients to possess the skills necessary to facilitate entry into these programs.

APPENDIX P

EXIT SKILLS IDENTIFIED BY 49 PREVOCATIONAL PROGRAMS NATIONWIDE

EXIT SKILLS IDENTIFIED BY 49 PREVOCATIONAL PROGRAMS NATIONWIDE

Number of Respondents	Percentage	Skill
44	93%	Communicate basic needs expressively by means of: Verbal expression
43	91%	Learn new tasks when supervisor explains by: Modeling
43		Maintain proper grooming by: Dressing appropriately for work
		Maintain personal hygiene by:
42	89%	Keeping teeth clean
42		Using deodorant
41		Work continuously at job station for: 1-2 hour periods
		Want to work for:
41		Money
41		Sense of accomplishment
41		Understand work routine by: Not displaying disruptive behavior during routine program changes
41		Continue work without disruption when: Stranger is observing
41	87%	Respond appropriately to safety signals given: Verbally
41		Initiate contact with supervisor when he: Feels too sick or tired to continue working
41		Maintain proper grooming by: Cleaning self after using restroom
		Maintain personal hygiene by:
41		Keeping hair combed
41		Keeping nails clean
40		Move safely about shop by: Identifying and avoiding dangerous areas
40		Communicate basic needs receptively by means of: Verbal expression
		Initiate contact with supervisor when he:
40	85%	Cannot do job
40		Runs out of material to do job
40		Finishes job

EXIT SKILLS IDENTIFIED BY 49 PREVOCATIONAL PROGRAMS NATIONWIDE

Number of Respondents	Percentage	Skill
		Maintain proper grooming by:
40		Dressing appropriately after using restroom
40	85%	Cleaning self before coming to work
40		Cleaning self after eating lunch
40		Maintain personal hygiene by: Shaving regularly
39		Move safely about shop by: Walking from place to place
39	83%	Continue to work without disruption when: supervisor is observing
39		Work alone without disruptions for: A 15-minute period with: No contacts from supervisor
38		Not leave job station inappropriately during work period more than: 1-2 times per day
38		Continue to work without disruption when: Fellow worker is observing
38	81%	Communicates basic needs expressively by means of: Gestures
		Initiate contact with supervisor when he:
38		Needs drink of water or to go to restroom
38		Makes a mistake on the job
38		Maintain proper grooming by: Eating food appropriately at lunch
37		Move safely about shop by: Wearing safe work clothing
37	79%	Complete repetitive tasks: Involving 1 step at: 95% accuracy
37		Eat lunch independently with no assistance in: Putting food container away
36		Come to work on an average of 5 times per week
36		Work in group situation and increase production: When supervisor asks to complete work by specific time
36	77%	Work alone without disruptions for: A 30-minute period with: 1-2 contacts from supervisor
36		Respond appropriately to safety signals given: Through signs

P-3

EXIT SKILLS IDENTIFIED BY 49 PREVOCATIONAL PROGRAMS NATIONWIDE

Number of Respondents	Percentage	Skill
36		Maintain proper grooming by: Displaying proper table manners at lunch
	77%	Be able to eat lunch independently with no assistance in:
36		Getting lunch sack or container
36		Getting food out of container
36		Take care of toileting needs independently with: No accidents per month
35	74%	Work in a group situation and increase production: When supervisor asks to work faster
34		Does not display or engage in: Major disruptive behavior more than: 1-2 times per week
34		Work alone and increase production: When supervisor asks him to work faster
		Communicate basic needs receptively by means of:
34	72%	Signs
34		Gestures
34		Respond appropriately to social contacts on: 1 out of every 2 occasions
33		Work at job station with: No more than 1-2 work disruptions per day
33	70%	Respond appropriately to safety signals given: Through signals
		Eat lunch independently with no assistance in:
33		Pouring liquid into cup or glass
33		Putting food back into container
32	68%	Does not display or engage in: Minor disruptive behavior more than: 1-2 times per week
32		Work in a group situation and increase production: When supervisor asks him to produce more than that produced for the previous period
31	66%	Work alone and increase production: When supervisor asks to complete work by specified time
31		Respond to instruction requiring immediate compliance within: 0-30 seconds

EXIT SKILLS IDENTIFIED BY 49 PREVOCATIONAL PROGRAMS NATIONWIDE

Number of Respondents	Percentage	Skill
30	64%	Be able to participate in work environment for periods of: 6 hours
30		Does not deviate from shop rules more than: 1-2 times per week
30		Does not initiate contact inappropriately with strangers more than: 1-2 times per day
29	62%	Correct work on task after: Second correction from supervisor
29		Reach place of work by means of: Own arrangement
27	57%	Learn to minimum proficiency new job tasks that: Involve 1 step in: 0-15 minutes
25	53%	Adapt to new work environment with normal levels of: Productivity in 1-5 days
25		Reach place of work by means of: Company-sponsored vehicle
23	49%	Adapt to new work environment with normal levels of: Contacts with supervisors in 30-60 minutes
6	13%	Work alone and increase production when: Supervisor asks him to produce more than that produced for the previous period

APPENDIX Q

SKILLS IDENTIFIED AS ENTRY LEVEL SKILLS BY 7 NORTH DAKOTA ACTIVITY CENTERS

Q-1

SKILLS IDENTIFIED AS ENTRY LEVEL SKILLS BY 7 NORTH DAKOTA ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
		Be able to communicate such basic needs as:
7	100%	Thirst
7		Hunger
7		Sickness
7		Pain
7		Toileting necessities
		Be able to communicate basic needs:
7		Expressively by means of: Gestures
7		Receptively by means of: Gestures
7		Maintain proper grooming by: Dressing appropriately after using restroom
		Maintain proper grooming by:
6	86%	Cleaning self before coming to work
6		Cleaning self after using the restroom
6		Cleaning self after eating lunch
6		Eating food appropriately at lunch
6		Be able to take care of toileting needs independently with: No accidents
5	71%	Recite verbally upon request: Full name
		Maintain proper grooming by:
5		Dressing appropriately for work
5		Displaying proper table manners at lunch
		Maintain personal hygiene by:
5		Shaving regularly
5		Keeping teeth clean
5		Keeping hair combed
5		Keeping nails clean
5		Using deodorant
		Be able to eat lunch independently with no assistance in:
5		Getting lunch sack or container
5		Getting food out of container
5		Pouring liquid into cup or glass
5		Putting food remainder back in container when finished

Q-2

ENTRY SKILLS OF ND ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
5		Putting lunch container away
5		Be able to reach place of work by means of: Own arrangement
5		Be absent from work no more than: An average of zero days per week
		Respond appropriately to safety signals when given:
5		Through signs
5		From signals (buzzers, bells, etc.)
5	71%	Have gross motor coordination to walk: To and from job station
5		Learn to work at new job tasks when supervisor explains by: Modeling (doing the task in front of client)
5		Continue working without disruptions when: Supervisor is observing
		Initiate contact with supervisor when he:
5		Feels too sick or tired to continue working
5		Needs drink of water or to go to restroom
4		Recite verbally upon request: Home address
		Be able to communicate basic needs:
		Expressively by means of:
4		Verbal expression
4	57%	Signs
		Receptively by means of:
4		Verbal expression
4		Signs
4		Read and follow community signs such as: Stop, Go, Bus, Caution, Walk, Wait, etc.
4		Be able to eat lunch independently with no assistance in: Eating food in appropriate order (sandwich before dessert)
4		Be able to reach place of work by means of: Company-sponsored vehicle
4	57%	Appear at job station on time and without prompting: In the morning when work begins
4		Understand work routine by: Not displaying disruptive behaviors when routine task or program changes occur

Q-3

ENTRY SKILLS OF ND ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
4		Be able to keep his/her work station area neat by: Picking up materials dropped on floor in area
4	57%	Respond appropriately to safety signals when given: Verbally
		Move safely about shop by:
4		Walking from place to place
4		Identifying and avoiding dangerous areas
4		Learn to work at new job tasks when supervisor explains by: Physically prompting
4		Be able to participate in work environment for periods of: 1 hour
4		Continue working without disruptions when: Fellow workers are observing
4	57%	Work alone continuously without disruptions for: A 30-minute period with: 1-2 contacts from supervisor
4		Increase his productivity in group or individual settings: When supervisor provides immediate tangible incentives for completed work (money, tokens, food, candy, etc.)
4		Initiate contact with supervisor when he: Cannot do job
		Want to work for:
4		Money
4		Social approval
3		Recite verbally upon request: Age
3		Initiate and/or respond verbally in: 1-2 word sentences
		Be able to communicate basic needs:
3		Expressively by means of: Finger spelling
3	43%	Receptively by means of: Finger spelling
3		Count items with aid of a jig to: 10
		Understand the purpose of money:
3		To want to work for money
3		To operate vending machines
		Be able to eat lunch semi-independently with some assistance in:

Q-4

ENTRY SKILLS OF ND ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
3		Getting lunch sack or container
3		Getting food out of container
3	43%	Eating food in appropriate order (sandwich before dessert)
3		Pouring liquid into cup or glass
3		Putting food remainder back in container when finished
3		Putting lunch container away
		Be able to keep his/her work station area neat by:
3		Putting work materials away after finishing task
3		Keeping completed products separate from other work materials
		Follow:
3		1-2 word instructions
3		3-5 word instructions
3	43%	Respond appropriately and immediately after receiving: 1 out of every 10 instructions
3		Remember to respond to an instruction that requires compliance after a specified time interval with: No reminders for period of: 1-5 minutes
3		Respond to an instruction requiring immediate compliance within: 30-60 seconds
		Have gross motor coordination to walk:
3		To and from bus stop
3		To and from home
3		Have fine motor coordination to assemble large (2"x½") nuts and bolts at: 0-10% of normal rate
		Be able to use small hand tools and office devices appropriately such as:
3		Stapler
3	43%	Tape dispenser
3		Scissors
		Learn to minimum proficiency new job tasks that:
3		Involve 1 step in: 15-30 minutes
3		Involve 2 steps in: 15-30 minutes

Q-5

ENTRY SKILLS OF ND ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
3		Involve 3 steps in: 1-6 hours of instruction
3		Involve 5 to 10 steps in: 1-6 hours of instruction
3	43%	Be able to complete repetitive tasks previously learned to proficiency with: 1 error for every 10 products
3		Work at job station continuously for: 1-2 hours
3		Work independently alone at table without discontinuing work more frequently than: 3-5 times per day
		Work alone continuously without disruptions for:
3		A 15-minute period with: No contacts from supervisor
3		A 60-minute period with: 3-5 contacts from supervisor
3		A 2-hour period with: 3-5 contacts from supervisor
		Initiate contact with supervisor when he:
3		Runs out of materials to do job
3	43%	Finishes job
3		Makes a mistake on the job
		Not initiate contact inappropriately with:
3		Coworkers (who are working) more frequently than: 1-2 times per day
3		Supervisor more frequently than: 1-2 times per day
3		Does not deviate from the shop rules (set down by supervisor) more frequently than: 3-5 times per week
		Does not display or engage in:
3		Minor disruptive behaviors (e.g., interruptions) more frequently than: 3-5 times per week
3		Major disruptive behaviors (e.g., tantrums) more frequently than: 1-2 times per week
		Have a good disposition and smile appropriately when contacted by:
3	43%	Supervisor on: 1 out of every 2 occasions
3		Fellow workers on: 1 out of every 2 occasions

Q-6

ENTRY SKILLS OF ND ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
		Want to work for:
3	43%	Tokens
3		Sense of accomplishment
		Recite verbally upon request:
2		Telephone number
2		Name of employer
2		Read and/or write: 1-2 word sentences
2	29%	Count items with aid of a jig to: More than 10
		Have basic arithmetic skills to:
2		Add
2		Subtract
2		Tell and follow time: On the hour
2		Dial the telephone and speak to: Operator
2		Understand the purpose of money: To make change
		Appear at job station on time and without prompting:
2		After each coffee break
2		After lunch
		Discontinue work at job station at appropriate time without:
		Prompting from supervisor:
2		For scheduled coffee breaks
2		For scheduled lunch periods
2		At end of work day
		Prompting from fellow workers:
2	29%	For scheduled coffee breaks
2		For scheduled lunch periods
2		At end of work day
2		Move safely about shop by: Wearing appropriately safe work clothes
		Follow:
2		6-8 word instructions
2		More than 8 word instructions
		Follow instructions with words such as:
2		In, on
2		To your right, to your left

Q-7

ENTRY SKILLS OF ND ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
2		Under, over, through
2		Press, hold, twist
		Respond appropriately and immediately after receiving:
2	29%	Each instruction
2		1 out of every 2 instructions
2		Remember to respond to an instruction that requires compliance after a specified time interval with no reminders for periods of: 20-30 minutes
		Speak clearly enough to be understood by anyone on the:
2		First transmission
2		Second transmission
2		Have fine motor coordination to assemble large (2"x½") nuts and bolts at: 20-30% of normal rate
		Be able to use small hand tools and office devices appropriately such as:
2		Screwdriver
2	29%	Hammer
2		Saw
2		Pliers
2		Paper cutter
2		Learn to work at new job tasks when supervisor explains by: Verbally describing how the task is to be done
2		Learn to minimum proficiency new job tasks that involve 1 step in: 0-15 minutes of instruction
		Correct work on task after:
2		First correction from supervisor
2		Second correction from supervisor
		Match and sort items:
		On 1 variable (e.g., only color, only size, or only shape) at:
2	29%	0-10% of normal rate
2		20-30% of normal rate
		On 2 variables (e.g., color and size) at:
2		0-10% of normal rate

Q-8

ENTRY SKILLS OF ND ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
2		10-20% of normal rate
		On 3 variables (e.g., color, size, and shape) at:
2		0-10% of normal rate
2		10-20% of normal rate
2	29%	Be able to complete repetitive tasks previously learned to proficiency: Involving 2 steps with less than: 2-3 errors for every 10 products
		Be able to complete repetitive tasks previously learned to proficiency:
2		Involving 1 step at: 0-10% of normal rate
2		Involving 2 steps at: 0-10% of normal rate
		Involving 3 or more steps at:
2		0-10% of normal rate
2		30-50% of normal rate
2		Be able to participate in work environment for periods of: 3 hours
		Work at job station continuously for:
2	29%	15-30 minutes
2		30-60 minutes
		Not leave job station inappropriately during work period more than:
2		0 times per day
2		1-2 times per day
2		3-5 times per day
2		Continue working without disruptions when: Stranger is observing
2		Work independently alone at table without discontinuing work more frequently than: 1-2 times per day
		Work alone continuously without disruptions for:
2		A 15-minute period with: 1-2 contacts from supervisor
2	29%	A 60-minute period with: 1-2 contacts from supervisor
2		A 2-hour period with: 6-8 contacts from supervisor
		Work in a group situation and increase his productivity:

Q-9

ENTRY SKILLS OF ND ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
2		When supervisor asks him to produce more than that produced for the previous period
2		When supervisor asks his group to complete the job by a specified time
		Work alone and increase his productivity:
2	29%	When supervisor asks him to produce more than that produced for the previous period
2		When supervisor asks him to complete the job by a specified time
2		Initiate contact with fellow worker when he: Needs task materials from fellow worker
2		Not initiate contact inappropriately with stranger in the shop more frequently than: 1-2 times per day
2		Does not deviate from the shop rules (set down by supervisor) more frequently than: 1-2 times per week
2		Does not display or engage in minor disruptive behaviors (e.g., interruptions) more frequently than: 1-2 times per week
2	29%	Work at job station with: 1-2 disruptions per day
2		Respond appropriately to social contacts initiated by others on at least: 1 out of every 2 occasions
		Be sociable on the job and initiate appropriate contacts with fellow workers:
2		3-5 times per day
2		6-8 times per day
		Adapt to new work setting with normal levels of:
		Productivity within a period of:
2		30-60 minutes
2		1 week or more
		Contacts with supervisor:
2		30-60 minutes
2		1 week or more
1	14%	Recite verbally upon request: Address of employer
1		Read and/or write: 3-5 word sentences

ENTRY SKILLS OF ND ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
		Initiate and/or respond verbally in:
1		3-5 word sentences
1		6-8 word sentences
1	14%	15 or more word sentences
		Count items independently (without aids) to:
1		10
1		More than 10
		Have basic arithmetic skills to:
1		Multiply
1		Divide
		Tell and follow time:
1		On the half hour
1		On the quarter hour
		Dial the telephone and speak to:
1		Relatives at home
1		Police department
1	14%	Employer
1		Fire department
1		Ambulance
1		Use the telephone book to look up names and numbers
1		Answer the telephone appropriately: For self
1		Be able to take care of toileting needs independently with: 1-2 accidents per month
1		Be able to reach place of work by means of: Public transportation
1		Be absent from work no more than: An average of once per week
1		Understand work routine by: Anticipating routine task or program changes by assisting in the change of materials
1	14%	Be able to keep his/her work station neat by: Arranging work materials that become disorganized while working
1		Respond appropriately and immediately after receiving: 1 out of every 5 instructions
		Remember to respond to an instruction that

ENTRY SKILLS OF ND ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
		requires compliance after a specified time interval with:
		No reminders for periods of:
1		5-10 minutes
1		10-20 minutes
1	14%	More than 30 minutes
		One reminder for periods of:
1		5-10 minutes
1		10-20 minutes
1		20-30 minutes
1		More than 30 minutes
		Two or more reminders for periods of:
1		1-5 minutes
1		10-20 minutes
1		20-30 minutes
		Respond to an instruction requiring immediate compliance with:
1		0-30 seconds
1	14%	60-90 seconds
1		Speak clearly enough to be understood by anyone on the third transmission
		Speak at the rate of:
1		1-10 words per minute
1		10-25 words per minute
1		Faster than 25 words per minute
		Have fine motor coordination to assemble large (2"x½") nuts and bolts at:
1		30-50% of normal rate
1		Faster than 50% of normal rate
		Be able to use small hand tools and office devices appropriately such as:
1	14%	Hand drill
1		Pliers
		Learn to minimum proficiency new job tasks that:
1		Involve 1 step in: 1-6 hours of instruction
		Involve 2 steps in:
1		0-15 minutes of instruction

Q-12

ENTRY SKILLS OF ND ACTIVITY CENTERS

Number of Respondents	Percentage	Skill
1		1-6 hours of instruction
		Involves 3 to 5 steps in:
1		0-15 minutes of instruction
1		15-30 minutes of instruction
1	14%	More than 12 hours of instruction
		Involves 5 to 10 steps in:
1		0-15 minutes of instruction
1		15-30 minutes of instruction
1		More than 12 hours of instruction
		Correct work on task after:
1		Third - fifth correction from supervisor
1		Fifth - tenth correction from supervisor
1		More than 10 corrections from supervisor
		Match and sort items:
1		On 1 variable (e.g., only color, only size, or only shape) at: 30-50% of normal rate
1		On 2 variables (e.g., color and size) at: 20-30% of normal rate
1	14%	On 3 variables (e.g., color, size, and shape) at: 20-30% of normal rate
		Be able to complete repetitive tasks previously learned to proficiency:
		Involving 1 step with less than:
1		1 error for every 20 products
1		2-3 errors for every 10 products
		Involving 2 steps with less than:
1		1 error for every 20 products
1		1 error for every 10 products
1		5 or more errors for every 10 products

1

APPENDIX R

SKILLS IDENTIFIED AS ENTRY LEVEL SKILLS BY 5 NORTH DAKOTA VOCATIONAL TRAINING PROGRAMS

R-1

SKILLS IDENTIFIED AS ENTRY LEVEL SKILLS BY 5 NORTH DAKOTA VOCATIONAL TRAINING PROGRAMS

Number of Respondents	Percentage	Skill
		Be able to communicate such basic needs as:
5		Thirst
5		Hunger
5	100%	Sickness
5		Pain
5		Toileting necessities
4		Recite verbally upon request: Full name
		Be able to communicate basic needs:
4		Expressively by means of: Verbal expression
4	80%	Receptively by means of: Verbal expression
4		Maintain proper grooming by: Dressing appropriately after using restroom
4		Be able to take care of toileting needs independently with: No accidents
4		Be able to reach place of work by means of: Own arrangement
4		Be absent from work no more than: An average of zero days per week
		Respond appropriately to safety signals when given:
4		Verbally
4		Through signs
4	80%	Respond appropriately and immediately after receiving each instruction
4		Learn to work at new job tasks when supervisor explains by: Modeling (doing the task in front of client)
4		Not leave job station inappropriately during work period more than: 1-2 times per day
4		Continue working without disruptions when: Supervisor is observing
		Recite verbally upon request:
3		Home address
3	60%	Telephone
3		Read and follow community signs such as: Stop, Go, Bus, Caution, Walk, Wait, etc.

R-2

ENTRY SKILLS OF ND VOCATIONAL TRAINING PROGRAMS

Number of Respondents	Percentage	Skill
3		Understand the purpose of money: To use money to purchase items
3		Maintain proper grooming by: Cleaning self after using the restroom
		Be able to eat lunch: Independently with no assistance in:
3	60%	Getting lunch sack or container
3		Getting food out of container
3		Putting food remainder back in container when finished
3		Putting lunch container away
3		Be able to reach place of work by means of: Company-sponsored vehicle
		Appear at job station on time and without prompting:
3		In the morning when work begins
3		After each coffee break
3		After lunch
3		Have gross motor coordination to walk: To and from job station
3		Learn to work at new job tasks when supervisor explains by: Verbally explaining how the task is to be done
3	60%	Work independently alone at table without discontinuing work more frequently than: 3-5 times per day
		Initiate contact with supervisor when he:
3		Cannot do job
3		Runs out of materials to do job
3		Finishes job
3		Feels too sick or tired to continue working
3		Needs drink of water or to go to restroom
3		Makes a mistake on the job
3		Want to work for: Money
		Recite verbally upon request:
2	40%	Age
2		Name of employer

R-3

ENTRY SKILLS OF ND VOCATIONAL TRAINING PROGRAMS

Number of Respondents	Percentage	Skill
2		Address of employer
		Be able to communicate basic needs:
2		Expressively by means of: Gestures
2		Receptively by means of: Gestures
2	40%	Count items: With aid of a jig to: 10
2		Tell and follow time: On the hour
2		Answer the telephone appropriately: For self
		Understand the purpose of money:
2		To want to work for money
2		To make change
2		To operate vending machines
		Maintain proper grooming by:
2		Dressing appropriately for work
2		Cleaning self before coming to work
2		Cleaning self after eating lunch
2		Eating food appropriately at lunch
2	40%	Displaying proper table manners at lunch
		Maintain personal hygiene by:
2		Shaving regularly
2		Keeping teeth clean
2		Keeping hair combed
2		Keeping nails clean
2		Using deodorant
		Be able to eat lunch:
2		Independently with no assistance in: Pouring liquid into cup or glass
		Semi-independently with some assistance in:
2		Getting lunch sack or container
2	40%	Getting food out of container
2		Eating food in appropriate order (sandwich before dessert
2		Pouring liquid into cup or glass
2		Putting food remainder back in container when finished
2		Putting lunch container away

R-4

ENTRY SKILLS OF ND VOCATIONAL TRAINING PROGRAMS

Number of Respondents	Percentage	Skill
2		Be able to take care of toileting needs independently with: 1-2 accidents per month
2		Be able to ride the public transit to and from work
2	40%	Be able to reach place of work by means of: Public transportation
		Discontinue work at job station at appropriate time without:
		Prompting from supervisor:
2		For scheduled coffee breaks
2		For scheduled lunch periods
2		At end of work day
		Prompting from fellow workers:
2		For scheduled coffee breaks
2		For scheduled lunch periods
2		At end of work day
2		Respond appropriately to safety signals when given: From signals (buzzers, bells, etc.)
		Move safely about shop by:
2		Walking from place to place
2	40%	Identifying and avoiding dangerous areas
2		Follow: 6-8 word instructions
		Follow instructions with words such as:
2		In, on
2		Under, over, through
2		Remember to respond to an instruction that requires compliance after a specified time interval with: Two or more reminders for periods of: 10-20 minutes
2		Respond to an instruction requiring immediate compliance within: 30-60 seconds
2		Speak clearly enough to be understood by anyone on the: Third transmission
2	40%	Have fine motor coordination to assemble large (2"x½") nuts and bolts at: 30-50% of normal rate
2		Learn to work at new job tasks when supervisor explains by: Physically prompting

ENTRY SKILLS OF ND VOCATIONAL TRAINING PROGRAMS

Number of Respondents	Percentage	Skill
2		Learn to minimum proficiency new job tasks that involve 1 step in: 1-6 hours of instruction
		Correct work on task after:
2		Second correction from supervisor
2	40%	Third - fifth correction from supervisor
2		Be able to complete repetitive tasks previously learned to proficiency: Involving 1 step with less than: 1 error for every 20 products
		Be able to complete repetitive tasks previously learned to proficiency:
2		Involving 1 step at: 30-50% of normal rate
2		Involving 3 or more steps at: 20-30% of normal rate
		Be able to participate in work environment for periods of:
2		2 hours
2		3 hours
2		Continue working without disruptions when: Fellow workers are observing
		Work alone continuously without disruptions for:
		A 15-minute period with:
2	40%	No contacts from supervisor
2		3-5 contacts from supervisor
		A 30-minute period with:
2		1-2 contacts from supervisor
2		6-8 contacts from supervisor
2		A 60-minute period with: 1-2 contacts from supervisor
2		A 2-hour period with: 3-5 contacts from supervisor
2		Initiate contact with fellow worker when he: Needs task materials from fellow worker
2		Not initiate contact inappropriately with supervisor more frequently than: 3-5 times per day
2	40%	Does not deviate from the shop rules (set down by supervisor) more frequently than: 3-5 times per week
2		Does not display or engage in minor disruptive behaviors (e.g., tantrums) more frequently than:

R-6

ENTRY SKILLS OF ND VOCATIONAL TRAINING PROGRAMS

Number of Respondents	Percentage	Skill
		1-2 times per week
2	40%	Respond appropriately to social contacts initiated by others on at least: 1 out of every 5 occasions
		Want to work for:
2		Social approval
2		Sense of accomplishment
1		Read and/or write: 3-5 word sentences
		Initiate and/or respond verbally in:
1		1-2 word sentences
1		3-5 word sentences
1		6-8 word sentences
		Be able to communicate basic needs: Expressively by means of:
1		Finger spelling
1	20%	Signs
		Receptively by means of:
1		Finger spelling
1		Signs
		Count items:
1		Independently (without aids) to: More than 10
1		With aid of a jig to: More than 10
		Have basic arithmetic skills to:
1		Add
1		Subtract
		Tell and follow time:
1		On the half hour
1		On the quarter hour
1	20%	Dial the telephone and speak to: Fire department
1		Use the telephone book to look up names and numbers
1		Answer the telephone appropriately: For others (to take messages)
1		Be able to eat lunch independently with no assistance in: Eating food in appropriate order (sandwich before dessert)
1		Be absent from work no more than: An average of

ENTRY SKILLS OF ND VOCATIONAL TRAINING PROGRAMS

Number of Respondents	Percentage	Skill
		once per week
1		Understand work routine by: Not displaying disruptive behaviors when routine task or program changes occur
1		Be able to keep his/her work station area neat by: Picking up materials dropped on floor in area
1	20%	Move safely about shop by: Wearing appropriately safe work clothes
		Follow:
1		1-2 word instructions
1		3-5 word instructions
1		Follow instructions with words such as: Press, hold, twist
		Remember to respond to an instruction that requires compliance after a specified time interval with:
		No reminders for periods of:
1		1-5 minutes
1		5-10 minutes
1		10-20 minutes
		One reminder for periods of:
1	20%	5-10 minutes
1		20-30 minutes
1		Two or more reminders for periods of: More than 30 minutes
1		Respond to an instruction requiring immediate compliance within: 60-90 seconds
1		Speak clearly enough to be understood by anyone on the: Second transmission
1		Speak at the rate of: 1-10 words per minute
		Have gross motor coordination to walk:
1		To and from bus stop
1		To and from home
		Be able to use small hand tools and office devices appropriately such as:
1	20%	Screwdriver
1		Hammer

R-8

ENTRY SKILLS OF ND VOCATIONAL TRAINING PROGRAMS

Number of Respondents	Percentage	Skill
1		Saw
1		Hand drill
1		Pliers
1	20%	Stapler
1		Tape dispenser
1		Scissors
1		Paper cutter
		Learn to minimum proficiency new job tasks that:
1		Involve 1 step in: 0-15 minutes of instruction
		Involve 2 steps in:
1		15-30 minutes of instruction
1		1-6 hours of instruction
		Involves 3 to 5 steps in:
1		1-6 hours of instruction
1		6-12 hours of instruction
		Involves 5 to 10 steps in:
1	20%	1-6 hours of instruction
1		More than 12 hours of instruction
		Match and sort items:
		On 1 variable (e.g., only color, only size, or only shape) at:
1		10-20% of normal rate
1		30-50% of normal rate
		On 2 variables (e.g., color and size) at:
1		10-20% of normal rate
1		30-50% of normal rate
		On 3 variables (e.g., color, size, and shape) at:
1		0-10% of normal rate
1	20%	30-50% of normal rate
		Be able to complete repetitive tasks previously learned to proficiency:
		Involving 2 steps with less than:
1		1 error for every 20 products
1		1 error for every 10 products
		Involving 3 or more steps with less than:

R-9

ENTRY SKILLS OF ND VOCATIONAL TRAINING PROGRAMS

Number of Respondents	Percentage	Skill
1		1 error for every 20 products
1		1 error for every 10 products
		Be able to complete repetitive tasks previously learned to proficiency:
1	20%	Involving 1 step at: Higher than 50% of normal rate
		Involving 2 steps at:
1		20-30% of normal rate
1		30-50% of normal rate
1		Involving 3 or more steps at: Higher than 50% of normal rate
1		Maintain both quantity and quality production by not: Increasing the number of products while at the same time increasing the number of mistakes per unit of time
1		Be able to participate in work environment for periods of: 6 hours
		Work at job station continuously for:
1		0-15 minutes
1	20%	15-30 minutes
1		30-60 minutes
1		1-2 hours
1		More than 2 hours
1		Not leave job station inappropriately during work period more than: 15 times per day
		Continue working without disruptions when:
1		Stranger is observing
1		Two strangers are observing
1		Work independently alone at table without discontinuing work more frequently than: More than 15 times per day
		Work alone continuously without disruptions for:
		A 60-minute period with:
1		6-8 contacts from supervisor
1	20%	9-15 contacts from supervisor
		A 2-hour period with:
1		9-15 contacts from supervisor
1		More than 15 contacts from supervisor

ENTRY SKILLS OF ND VOCATIONAL TRAINING PROGRAMS

Number of Respondents	Percentage	Skill
		Work in a group situation and increase his productivity:
1		On his own
1		When supervisor asks him to work faster
1	20%	When supervisor asks him to produce more than that produced for the previous period
		Work alone and increase his productivity:
1		On his own
1		When supervisor asks him to work faster
1		When supervisor asks him to produce more than that produced for the previous period
1		Increase his productivity in group or individual settings: When supervisor provides immediate tangible incentives for completed work (money, tokens, food, candy, etc.)
		Not initiate contact inappropriately with:
		Coworkers (who are working) more frequently than:
1		1-2 times per day
1	20%	3-5 times per day
1		Supervisor more frequently than: 1-2 times per day
1		Stranger in shop more frequently than: 1-2 times per day
1		Does not deviate from the shop rules (set down by supervisor) more frequently than: 1-2 times per week
		Does not display or engage in:
		Minor disruptive behaviors (e.g., interruptions) more frequently than:
1		1-2 times per week
1		3-5 times per week
1	20%	9-15 times per week
1		Major disruptive behaviors (e.g., tantrums) more frequently than: 6-8 times per week
		Work at job station with:
1		1-2 disruptions per day
1		3-5 disruptions per day
1		Respond appropriately to social contacts

R-11

ENTRY SKILLS OF ND VOCATIONAL TRAINING PROGRAMS

Number of Respondents	Percentage	Skill
		initiated by others on at least: 1 out of every 10 occasions
		Have a good disposition and smile appropriately when contacted by:
		Supervisor on:
1	20%	1 out of every 2 occasions
1		1 out of every 5 occasions
		Fellow workers on:
1		1 out of every 2 occasions
1		1 out of every 5 occasions
		Be sociable on the job and initiate appropriate contact with fellow workers:
1		1-2 times per day
1		6-8 times per day
		Adapt to new work setting with normal level of:
		Productivity within a period of:
1	20%	30-60 minutes
1		1-5 days
1		One week or more
		Contacts with supervisor:
1		1-5 days
1		One week or more
		Want to work for:
1		Tokens
1		Edibles

APPENDIX S

SKILLS IDENTIFIED AS ENTRY LEVEL SKILL
BY 4 NORTH DAKOTA
SHELTERED EMPLOYMENT TRAINING PROGRAMS

APPENDIX S

IED AS ENTRY LEVEL SKILLS
4 NORTH DAKOTA
OYMENT TRAINING PROGRAMS

S-1

SKILLS IDENTIFIED AS ENTRY LEVEL SKILLS BY FOUR NORTH DAKOTA SHELTERED EMPLOYMENT PROGRAMS

Number of Respondents	Percentage	Skill
		Be able to communicate such basic needs as:
4		Thirst
4		Hunger
4	100%	Sickness
4		Pain
4		Toileting necessities
4		Be able to reach place of work by means of: Own arrangement
4		Be absent from work no more than: An average of zero days per week
3		Recite verbally upon request: Full name
		Be able to communicate basic needs:
3		Expressively by means of: Gestures
3		Receptively by means of: Gestures
3	75%	Read and follow community signs such as Stop, Go, Bus, Walk, Caution, Wait, etc.
3		Understand the purpose of money: To use money to purchase items
3		Maintain proper grooming by: Dressing appropriately after using restroom
		Be able to eat lunch independently with no assistance in:
3		Getting lunch sack or container
3		Getting food out of container
3		Putting food remainder back in container when finished
3		Putting lunch container away
3		Be able to reach place of work by means of: Company-sponsored vehicle
		Appear at job station on time and without prompting:
3	75%	In the morning when work begins
3		After each coffee break
3		After lunch
3		Respond appropriately to safety signals when given: From signals (buzzers, bells, etc.)

S-2

ENTRY SKILLS OF ND SHELTERED EMPLOYMENT PROGRAMS

Number of Respondents	Percentage	Skill
3		Learn to work at new job tasks when supervisor explains by: Modeling (doing the task in front of client)
3		Not leave job station inappropriately during work period more than: 1-2 times per day
3		Continue working without disruption when: Supervisor is observing
	75%	Initiate contact with supervisor when he:
3		Cannot do job
3		Runs out of materials to do job
3		Finishes job
3		Needs drink of water or to go to restroom
3		Makes a mistake on the job
3		Does not display or engage in major disruptive behaviors (e.g., tantrums) more frequently than: 1-2 times per week
		Recite verbally upon request:
2		Home address
2		Telephone
2		Name of employer
		Be able to communicate basic needs:
		Expressively by means of:
2	50%	Verbal expression
2		Signs
		Receptively by means of:
2		Verbal expression
2		Signs
2		Count items with aid of a jig to: 10
2		Dial the telephone and speak to: Operator
		Understand the purpose of money:
2	50%	To want to work for money
2		To operate vending machines
		Maintain proper grooming by:
2		Dressing appropriately for work
2		Cleaning self after using restroom
2		Cleaning self after eating lunch

S-3

ENTRY SKILLS OF ND SHELTERED EMPLOYMENT PROGRAMS

Number of Respondents	Percentage	Skill
2		Eating food appropriately at lunch
2		Displaying proper table manners at lunch
		Maintain personal hygiene by:
2	50%	Shaving regularly
2		Keeping teeth clean
2		Keeping hair combed
2		Keeping nails clean
2		Using deodorant
2		Be able to eat lunch independently with no assistance in: Pouring liquid into cup or glass
		Be able to take care of toileting needs independently with:
2		No accidents
2		1-2 accidents per month
2		Be able to ride the public transit to and from work
2		Be able to reach place of work by means of: Public transportation
	50%	Discontinue work at job station at appropriate time without:
		Prompting from supervisor:
2		For scheduled coffee breaks
2		For scheduled lunch periods
2		At end of work day
		Prompting from fellow workers:
2		For scheduled coffee breaks
2		For scheduled lunch period
2		At end of work day
		Respond appropriately to safety signals when given:
2		Verbally
2		Through signs
2		Move safely about shop by: Walking from place to place
2	50%	Respond appropriately and immediately after receiving: 1 out of every 2 instructions

S-4

ENTRY SKILLS OF ND SHELTERED EMPLOYMENT PROGRAMS

Number of Respondents	Percentage	Skills
2		Respond to an instruction requiring immediate compliance within: 30-60 seconds
2		Have gross motor coordination to walk: To and from job station
		Learn to work at new job tasks when supervisor explains by:
2	50%	Physically prompting
2		Verbally describing how the task is done
2		Correct work on task after: Second correction from supervisor
2		Be able to complete repetitive tasks previously learned to proficiency involving 1 step with less than: 1 error for every 20 products
2		Be able to participate in work environment for periods of: 3 hours
2		Continue working without disruptions when: Fellow workers are observing
2		Work independently alone at table without discontinuing work more frequently than: 3-5 times per day
		Work continuously without disruptions for:
2		A 15-minute period with: No contacts from supervisor
2		A 30-minute period with: 1-2 contacts from supervisor
2	50%	A 60-minute period with: 1-2 contacts from supervisor
2		A 2-hour period with: 3-5 contacts from supervisor
2		Work alone and increase his productivity: When supervisor asks him to produce more than that produced for the previous period
2		Initiate contact with supervisor when he: Feels too sick or tired to continue working
2		Initiate contact with fellow worker when he: Needs task materials from fellow worker
2		Does not display or engage in minor disruptive behaviors (e.g., interruptions) more frequently than: 3-5 times per week
2		Want to work for: Money

S-5

ENTRY SKILLS OF ND SHELTERED EMPLOYMENT PROGRAMS

Number of Respondents	Percentage	Skills
		Recite verbally upon request:
1		Age
1		Address of employer
1	25%	Read and/or write: 1-2 word sentences
1		Initiate and/or respond verbally in: 6-8 word sentences
		Be able to communicate basic needs:
1		Expressively by means of: Finger spelling
1		Receptively by means of: Finger spelling
		Count items:
1		Independently (without aids) to: More than 10
1		With aid of a jig to: More than 10
		Have basic arithmetic skills to:
1		Add
1		Subtract
	25%	Tell and follow time:
1		On the hour
1		On the half hour
1		On the quarter hour
1		Answer the telephone appropriately: For self
1		Understand the purpose of money: To make change
		Be able to eat lunch:
1		Independently with no assistance in: Eating food in appropriate order (sandwich before dessert)
		Semi-independently with some assistance in:
1		Getting lunch sack or container
1		Getting food out of container
1		Eating food in appropriate order (sandwich before dessert)
1		Pouring liquid into cup or glass
1	25%	Putting food remainder back in container when finished
1		Putting lunch container away
1		Understand work routine by: Not displaying disruptive behaviors when routine task or program changes occur

S-6

ENTRY SKILLS OF ND SHELTERED EMPLOYMENT PROGRAMS

Number of Respondents	Percentage	Skills
1		Be able to keep his/her work station area neat by: Picking up materials dropped on floor in area
1		Move safely about shop by: Identifying and avoiding dangerous areas
	25%	Follow:
1		1-2 word instructions
1		3-5 word instructions
1		6-8 word instructions
		Follow instructions with word such as:
1		In, on
1		Under, over, through
1		Respond appropriately and immediately after receiving: 1 out of every 5 instructions
		Remember to respond to an instruction that requires compliance after a specified time interval with:
		No reminders for periods of:
1		1-5 minutes
1		5-10 minutes
1		One reminder for periods of: 10-20 minutes
		Two or more reminders for periods of:
1	25%	10-20 minutes
1		20-30 minutes
		Speak clearly enough to be understood by anyone on the:
1		Second transmission
1		Third transmission
		Have gross motor coordination to walk:
1		To and from bus stop
1		To and from home
		Have fine motor coordination to assemble large (2" x ½") nuts and bolts at:
1	25%	20-30% of normal rate
1		30-50% of normal rate
		Be able to use small hand tools and office devices appropriately such as:
1		Screwdriver

S-7

ENTRY SKILLS OF ND SHELTERED EMPLOYMENT PROGRAMS

Number of Respondents	Percentage	Skills
1		Hammer
1	25%	Saw
1		Pliers
1		Stapler
1		Tape dispenser
1		Scissors
1		Paper cutter
		Learn to minimum proficiency new job tasks that:
		Involve 1 step in:
1		0-15 minutes of instruction
1		1-6 hours of instruction
1		Involve 2 steps in: 15-30 minutes of instruction
1	25%	Involve 3 to 5 steps in: 1-6 hours of instruction
1		Involve 5 to 10 steps in: 1-6 hours of instruction
1		Correct work on task after: Third - fifth correction from supervisor
		Match and sort items:
		On 1 variable (e.g., only color, only size, or only shape) at:
1		10-20% of normal rate
1		30-50% of normal rate
		On 2 variables (e.g., color and size) at:
1		10-20% of normal rate
1		30-50% of normal rate
		On 3 variables (e.g., color, size, and shape) at:
1	25%	0-10% of normal rate
1		30-50% of normal rate
		Be able to complete repetitive tasks previously learned to proficiency involving 2 steps with less than:
1		1 error for every 20 products
1		1 error for every 10 products
		Involving 3 or more steps with less than:

ENTRY SKILLS OF ND SHELTERED EMPLOYMENT PROGRAMS

Number of Respondents	Percentage	Skills
1		1 error for every 20 products
1	25%	1 error for every 10 products
		Be able to complete repetitive tasks previously learned to proficiency:
		Involving 1 step at:
1		20-30% of normal rate
1		Higher than 50% of normal rate
		Involving 2 steps at:
1		20-30% of normal rate
1		Higher than 50% of normal rate
1		Involving 3 or more steps at: 10-20% of normal rate
1		Maintain both quantity and quality production by not: Increasing the number of products while at the same time increasing the number of mistakes per unit of time
		Be able to participate in work environment for periods of:
1	25%	2 hours
1		6 hours
		Work at job station continuously for:
1		0-15 minutes
1		15-30 minutes
1		30-60 minutes
1		More than 2 hours
1		Not leave job station inappropriately during work period more than: 15 times per day
		Continue working without disruptions when:
1		Stranger is observing
1		Two strangers are observing
1		Work independently alone at table without discontinuing work more frequently than: More than 15 times per day
		Work alone continuously without disruptions for:
1	25%	A 15-minute period with: 3-5 contacts from supervisor
1		A 30-minute period with: 6-8 contacts from supervisor

ENTRY SKILLS OF ND SHELTERED EMPLOYMENT PROGRAMS

Number of Respondents	Percentage	Skills
1		A 60-minute period with: 9-15 contacts from supervisor
1		A 2-hour period with: More than 15 contacts from supervisor
		Work in a group situation and increase his productivity:
1	25%	When supervisor asks him to work faster
1		When supervisor asks him to produce more than that produced for the previous period
1		When supervisor asks his group to complete the job by a specified time
		Work alone and increase his productivity:
1		When supervisor asks him to work faster
1		When supervisor asks him to complete the job by a specified time
1		Increase his productivity in group or individual settings: When supervisor provides immediate tangible incentives for completed work (money, tokens, food, candy, etc.)
		Not initiate contact inappropriately with:
1	25%	Coworkers (who are working) more frequently than: 1-2 times per day
		Supervisor more frequently than:
1		1-2 times per day
1		3-5 times per day
		Does not deviate from the shop rules (set down by the supervisor) more frequently than:
1		1-2 times per week
1		3-5 times per week
1		Does not display or engage in minor disruptive behaviors (e.g., interruptions) more frequently than: 1-2 times per week
1		Work at job station with: 1-2 disruptions per day
		Respond appropriately to social contact initiated by others on at least:
1	25%	1 out of every 2 occasions
1		1 out of every 5 occasions
1		1 out of every 10 occasions

S-10

ENTRY SKILLS OF ND SHELTERED EMPLOYMENT PROGRAMS

Number of Respondents	Percentage	Skills
		Have a good disposition and smile appropriately when contacted by:
1		The supervisor on: 1 out of every 2 occasions
1	25%	Fellow workers on: 1 out of every 2 occasions
1		Be sociable on the job and initiate appropriate contacts with fellow workers: 6-8 times per day
		Adapt to new work setting with normal levels of:
		Productivity within a period of:
1		30-60 minutes
1		One week or more
1	25%	Contacts with supervisor: One week or more
		Want to work for:
1		Social approval
1		Sense of accomplishment

APPENDIX T

SKILLS IDENTIFIED AS ENTRY LEVEL SKILLS
BY 16 NORTH DAKOTA PROGRAMS
IN 9 SEPARATE FACILITIES

T-1

SKILLS IDENTIFIED AS ENTRY LEVEL SKILLS BY 16 NORTH DAKOTA PROGRAMS IN 9 SEPARATE FACILITIES

Number of Respondents	Percentage	Skill
	100%	Be able to communicate such basic needs as:
16		Thirst
16		Hunger
16		Sickness
16		Pain
16		Toileting necessities
14	88%	Maintain proper grooming by: Dressing appropriately after using restroom
13	81%	Be able to reach place of work by means of: Own arrangement
13		Be absent from work no more than: An average of zero days per week
12	75%	Recite verbally upon request: Full name
		Be able to communicate basic needs:
12		Expressively by means of: Gestures
12		Receptively by means of: Gestures
12		Be able to take care of toileting needs independently with: No accidents
12		Learn to work at new job tasks when supervisor explains by: Modeling (doing the task in front of client)
12		Continue working without disruptions when: Supervisor is observing
11	69%	Maintain proper grooming by: Cleaning self after using the restroom
		Be able to eat lunch independently with no assistance in:
11		Getting lunch sack or container
11		Getting food out of container
11		Putting food remainder back in container when finished
11		Putting lunch container away
11		Respond appropriately to safety signals when given: Through signs

T-2

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
11	69%	Initiate contact with supervisor when he: Needs drink of water or to go to restroom
		Be able to communicate basic needs:
10		Expressively by means of: Verbal expression
10	63%	Receptively by means of: Verbal expression
10		Read and follow community signs such as Stop, Go, Bus, Caution, Walk, Wait, Etc.
		Maintain proper grooming by:
10		Cleaning self before coming to work
10		Cleaning self after eating lunch
10		Eating food appropriately at lunch
10		Be able to reach place of work by means of: Company-sponsored vehicle
10		Appear at job station on time and without prompting: In the morning when work begins
		Respond appropriately to safety signals when given:
10	63%	Verbally
10		From signals (buzzers, bells, etc.)
10		Have gross motor coordination to walk: To and from job station
		Initiate contact with supervisor when he:
10		Cannot do job
10		Feels too sick or tired to continue working
9		Recite verbally upon request: Home address
		Maintain proper grooming by:
9	56%	Dressing appropriately for work
9		Displaying proper table manners at lunch
		Maintain personal hygiene by:
9		Shaving regularly
9		Keeping teeth clean
9		Keeping nails clean
9	56%	Using deodorant
9		Be able to eat lunch independently with no assistance in: Pouring liquid into cup or glass

T-3

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
		Initiate contact with supervisor when he:
9		Runs out of materials to do job
9		Finishes job
9	56%	Makes a mistake on the job
9		Not leave job station inappropriately during work period more than: 1-2 times per day
9		Want to work for: Money
		Appear at job station on time and without prompting:
8		After each coffee break
8	50%	After lunch
8		Move safely about shop by: Walking from place to place
8		Respond appropriately and immediately after receiving: 1 out of every 2 instructions
8		Learn to work at new job tasks when supervisor explains by: Physically prompting
8		Continue working without disruptions when: Fellow workers are observing
8	50%	Work independently alone at table without discontinuing work more frequently than: 3-5 times per day
8		Work alone continuously without disruptions for: A 30-minute period with: 1-2 contacts from supervisor
8		Does not display or engage in: Major disruptive behaviors (e.g., tantrums) more frequently than: 1-2 times per week
7		Recite verbally upon request: Telephone
		Be able to communicate basic needs:
7		Expressively by means of: Signs
7		Receptively by means of: Signs
7	44%	Count items: With aid of a jig to: 10
		Understand the purpose of money:
7		To want to work for money
7		To use money to purchase items
7		To operate vending machines

T-4

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
7		Move safely about shop by: Identifying and avoiding dangerous areas
7		Respond to an instruction requiring immediate compliance within: 30-60 seconds
7	44%	Learn to work at new job tasks when supervisor explains by: Verbally describing how the task is to be done
		Work alone continuously without disruption for:
7		A 15-minute period with: No contacts from supervisor
7		A 2-hour period with: 3-5 contacts from supervisor
7		Want to work for: Social approval
		Recite verbally upon request:
6		Age
6		Name of employer
6		Dial the telephone and speak to: Operator
		Be able to eat lunch:
6	38%	Independently with no assistance in: Eating food in appropriate order (sandwich before dessert)
		Semi-independently with some assistance in:
6		Getting lunch sack or container
6		Getting food out of container
6		Eating food in appropriate order (sandwich before dessert)
6		Pouring liquid into cup or glass
6		Putting food remainder back in container when finished
6	38%	Putting lunch container away
		Discontinue work at job station at appropriate time without:
		Prompting from supervisor:
6		For scheduled coffee breaks
6		For scheduled lunch periods
6		At end of work day
		Prompting from fellow workers:
6		For scheduled coffee breaks

T-5

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
6		For scheduled lunch periods
6		At end of work day
6	38%	Understand work routine by: Not displaying disruptive behaviors when routine task or program changes occur
6		Be able to keep his/her work station area neat by: Picking up materials dropped on floor in area
6		Correct work task after: Second correction from supervisor
6		Be able to participate in work environment for periods of: 3 hours
6		Work alone continuously without disruptions for: A 60-minute period with: 1-2 contacts from supervisor
6		Increase his productivity in group or individual settings: When supervisor provides immediate tangible incentives for completed work (money, tokens, food, candy, etc.)
6	38%	Initiate contact with fellow worker when he: Needs task materials from fellow worker
6		Does not deviate from the shop rules (set down by supervisor) more frequently than: 3-5 times per week
6		Does not display or engage in: Minor disruptive behaviors (e.g., interruptions) more frequently than: 3-5 times per week
6		Want to work for: Sense of accomplishment
		Be able to communicate basic needs:
5		Expressively by means of: Finger spelling
5	31%	Receptively by means of: Finger spelling
5		Tell and follow time: On the hour
5		Understand the purpose of money: To make change
5		Be able to take care of toileting needs: Independently with: 1-2 accidents per month
5		Be able to reach place of work by means of: Public transportation
		Follow:
5		1-2 word instructions

T-6

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
5		3-5 word instructions
5		6-8 word instructions
		Follow instructions with words such as:
5		In, on
5		Under, over, through
5	31%	Remember and respond to an instruction that requires compliance after a specified time interval with: No reminders for periods of: 1-5 minutes
		Have gross motor coordination to walk:
5		To and from bus stop
5		To and from home
		Be able to use small hand tools and office devices appropriately such as:
5		Stapler
5		Tape dispenser
5		Scissors
		Learn to minimum proficiency new job tasks that:
5	31%	Involve 2 steps in: 15-30 minutes of instruction
5		Involve 3 to 5 steps in: 1-6 hours of instruction
5		Involve 5 to 10 steps in: 1-6 hours of instruction
5		Be able to complete repetitive tasks previously learned to proficiency: Involving 1 step with less than: 1 error for every 20 products
5		Work alone and increase his productivity: When supervisor asks him to produce more than that produced for the previous period
		Not initiate contact inappropriately with:
5		Coworkers (who are working) more frequently than: 1-2 times per day
5	31%	Supervisor more frequently than: 1-2 times per day
		Have a good disposition and smile appropriately when contacted by:
5		The supervisor on: 1 out of every 2 occasions
5		Fellow workers on: 1 out of every 2 occasions

T-7

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
4		Recite verbally upon request: Address of employer
4		Initiate and/or respond verbally in: 1-2 word sentences
4		Count items: With aid of a jig to: More than 10
	25%	Have basic arithmetic skills to:
4		Add
4		Subtract
4		Answer the telephone appropriately: For self
4		Be able to ride the public transit to and from work
4		Remember to respond to an instruction that requires compliance after a specified time interval with: Two or more reminders for periods of: 10-20 minutes
4		Respond to an instruction requiring immediate compliance within: 60-90 seconds
		Speak clearly enough to be understood by anyone on the:
4		Second transmission
4	25%	Third transmission
4		Have fine motor coordination to assemble large (2"x½") nuts and bolts at: 30-50% of normal rate
		Be able to use small hand tools and office devices appropriately such as:
4		Hammer
4		Screwdriver
4		Saw
4		Pliers
4		Paper cutter
		Learn to minimum proficiency new job tasks that: Involve 1 step in:
4	25%	0-15 minutes of instruction
4		1-6 hours of instruction
4		Correct work on task after: Third-fifth correction from supervisor
4		Match and sort items:

T-8

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
4		On 2 variables (e.g., color and size) at: 10-20% of normal rate
4		On 3 variables (e.g., color, size, and shape) at: 0-10% of normal rate
		Be able to participate in work environment for periods of:
4	25%	1 hour
4		2 hours
		Work at job station continuously for:
4		15-30 minutes
4		30-60 minutes
4		1-2 hours
4		Continue working without disruptions when: Stranger is observing
		Work alone continuously without disruptions for:
4		A 15-minute period with: 3-5 contacts from supervisor
4	25%	A 30-minute period with: 6-8 contacts from supervisor
4		Work in a group situation and increase his productivity: When supervisor asks him to produce more than that produced for the previous period
4		Does not deviate from the shop rules (set down by supervisor) more frequently than: 1-2 times per week
4		Does not display or engage in: Minor disruptive behaviors (e.g., interruptions) more frequently than: 1-2 times per week
4		Work at job station with: 1-2 disruptions per day
4		Respond appropriately to social contacts initiated by others on at least: 1 out of every 5 occasions
4	25%	Be sociable on the job and initiate appropriate contacts with fellow workers: 6-8 times per day
		Adapt to new work setting with normal levels of:
		Productivity within a period of:
4		30-60 minutes
4		One week or more

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
4	25%	Contacts with supervisor: One week or more
4		Want to work for: Tokens
3		Read and/or write: 1-2 word sentences
3		Initiate and/or respond verbally in: 6-8 word sentences
3		Count items: Independently (without aids) to: More than 10
		Follow and tell time:
3	19%	On the half hour
3		On the quarter hour
		Be able to keep his/her work station area neat by:
3		Putting work materials away after finishing task
3		Keeping completed products separate from other work materials
3		Move safely about shop by: Wearing appropriately safe work clothes
3		Follow instructions with words such as: Press, hold, twist
3		Respond appropriately and immediately after receiving: 1 out of every 10 instructions
3		Remember to respond to an instruction that requires compliance after a specified interval with: No reminders for periods of: 5-10 minutes
		Have fine motor coordination to assemble large (2"x½") nuts and bolts at:
3	19%	0-10% of normal rate
3		20-30% of normal rate
3		Be able to use small hand tools and office devices appropriately such as: Pliers
3		Learn to minimum proficiency new job tasks that: Involve 1 step in: 15-30 minutes of instruction
3		Match and sort items: On 1 variable (e.g., only color, only size, or only shape) at: 30-50% of normal rate

T-10

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
		Be able to complete repetitive tasks previously learned to proficiency:
3		Involving 1 step with less than: 1 error for every 10 products
		Involving 2 steps with less than:
3	19%	1 error for every 20 products
3		1 error for every 10 products
		Involving 3 or more steps with less than:
3		1 error for every 20 products
3		1 error for every 10 products
		Be able to complete repetitive tasks previously learned to proficiency:
3		Involving 1 step at: 30-50% of normal rate
3		Involving 2 steps at: 20-30% of normal rate
3		Involving 3 or more steps at: 20-30% of normal rate
3		Work at job station continuously for: 0-15 minutes
3		Not leave job station inappropriately during work period more than: 15 times per day
3	19%	Continue working without disruptions when: Two strangers are observing
3		Work independently alone at table without discontinuing work more frequently than: More than 15 times per day
		Work alone continuously without disruptions for:
		A 60-minute period with:
3		3-5 contacts from supervisor
3		9-15 contacts from supervisor
3		A 2-hour period with: More than 15 contacts from supervisor
		Work in a group situation and increase his productivity:
3		When supervisor asks him to work faster
3		When supervisor asks his group to complete the job by a specified time
		Work alone and increase his productivity:
3		When supervisor asks him to work faster

T-11

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
3		When supervisor asks him to complete the job by a specified time
		Not initiate contact inappropriately with:
3	19%	Supervisor more frequently than: 3-5 times per day
3		Stranger in shop more frequently than: 1-2 times per day
		Respond appropriately to social contacts initiated by others on at least:
3		1 out of every 2 occasions
3		1 out of every 10 occasions
2		Read and/or write: 3-5 word sentences
2		Initiate and/or respond verbally in: 3-5 word sentences
2		Dial the telephone and speak to: Fire department
2	13%	Use the telephone book to look up names and numbers
2		Be absent from work no more than: An average of once per week
2		Follow: More than 8 word instructions
2		Follow instructions with words such as: To your right, to your left
		Respond appropriately and immediately after receiving:
2		Each instruction
2		1 out of every 5 instructions
		Remember to respond to an instruction that requires compliance after a specified time interval with:
		No reminders for periods of:
2		10-20 minutes
2	13%	20-30 minutes
		One reminder for periods of:
2		5-10 minutes
2		10-20 minutes
2		20-30 minutes
2		Two or more reminders for periods of: 20-30 minutes

T-12

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
2		Speak clearly enough to be understood by anyone on the: First transmission
2		Speak at the rate of: 1-10 words per minute
2		Be able to use small hand tools and office devices appropriately such as: Hand drill
		Learn to minimum proficiency new job tasks that:
2	13%	Involve 2 steps in: 1-6 hours of instruction
2		Involve 5 to 10 steps in: More than 12 hours of instruction
2		Correct work on task after: First correction from supervisor
		Match and sort items:
		On 1 variable (e.g., only color, only size, or only shape) at:
2		0-10% of normal rate
2		10-20% of normal rate
2		20-30% of normal rate
		On 2 variables (e.g., color and size) at:
2		0-10% of normal rate
2		30-50% of normal rate
		On 3 variables (e.g., color, size, and shape) at:
2	13%	10-20% of normal rate
2		30-50% of normal rate
2		Be able to learn repetitive tasks previously learned to proficiency: Involving 2 steps with less than: 2-3 errors for every 10 products
		Be able to complete repetitive tasks previously learned to proficiency:
		Involving 1 step at:
2		0-10% of normal rate
2		Higher than 50% of normal rate
		Involving 2 steps at:
2		0-10% of normal rate
2		30-50% of normal rate
		Involving 3 or more steps at:
2	13%	0-10% of normal rate
2		30-50% of normal rate

T-13

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
2		Maintain both quantity and quality production by not: Increasing the number of products while at the same time increasing the number of mistakes per unit of time
2		Be able to participate in work environment for periods of: 6 hours
2	13%	Work at job station continuously for: More than 2 hours
		Not leave job station inappropriately during work period more than:
2		0 times per day
2		3-5 times per day
2		Work independently alone at table without discontinuing work more frequently than: 1-2 times per day
		Work alone continuously without disruptions for:
2		A 15-minute period with: 1-2 contacts from supervisor
2		A 30-minute period with: 3-5 contacts from supervisor
2		A 2-hour period with: 6-8 contacts from supervisor
2		Work in a group situation and increase his productivity: On his own
2		Work alone and increase his productivity: On his own
2	13%	Initiate contact with fellow workers when he: Needs help on task
2		Work at job station with: 3-5 interruptions per day
		Be sociable on the job and initiate appropriate contacts with fellow workers:
2		1-2 times per day
2		3-5 times per day
2		Adapt to new work setting with normal levels of: Contacts from supervisor: 30-60 minutes
2		Want to work for: Edibles
1	6%	Initiate and/or respond verbally in: 15 or more word sentences

T-14

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
1		Count independently (without aids) to: 10
		Have basic arithmetic skills to:
1		Multiply
1		Divide
		Dial telephone and speak to:
1	6%	Relatives at home
1		Police department
1		Employer
1		Ambulance
1		Answer telephone appropriately: For others (to take messages)
1		Understand work routine by: Anticipating routine task or program changes by assisting in the change of materials
1		Be able to keep his/her work station neat by: Arranging work materials that become disorganized while working
		Remember to respond to an instruction that requires compliance after a specified time interval with:
1	6%	No reminders for periods of: More than 30 minutes
1		One reminder for periods of: More than 30 minutes
		Two reminders for periods of:
1		1-5 minutes
1		More than 30 minutes
1		Respond to an instruction requiring immediate compliance within: 0-30 seconds
		Speak at the rate of:
1		10-25 words per minute
1		Faster than 25 words per minute
1		Have fine motor coordination to assemble large (2"x½") nuts and bolts at: Faster than 50% of normal rate
		Learn to minimum proficiency new job tasks that:
1	6%	Involve 2 steps in: 0-15 minutes of instruction

T-15

ENTRY SKILLS IN ND PROGRAMS

Number of Respondents	Percentage	Skill
		Involve 3-5 steps in:
1		0-15 minutes of instruction
1		15-30 minutes of instruction
1		6-12 hours of instruction
1	6%	More than 12 hours of instruction
		Involve 5-10 steps in:
1		0-15 minutes of instruction
1		15-30 minutes of instruction
		Correct work on task after:
1		Fifth - tenth correction from supervisor
1		More than 10 corrections from supervisor
		Match and sort items:
1		On 2 variables (e.g., color and size) at: 20-30% of normal rate
1		On 3 variables (e.g., color, size, and shape) at: 20-30% of normal rate
		Be able to complete repetitive tasks previously learned to proficiency:
1		Involving 1 step with less than: 2-3 errors for every 10 products
1	6%	Involving 2 steps with less than: 5 or more errors for every 10 products
		Involving 3 or more steps with less than:
1		2-3 errors for every 10 products
1		4-5 errors for every 10 products
1		5 or more errors for every 10 products
		Be able to learn repetitive tasks previously learned to proficiency:
		Involving 1 step at:
1		10-20% of normal rate
1		20-30% of normal rate
1		Involving 2 steps at: Higher than 50% of normal rate
		Involving 3 or more steps at:
1		10-20% of normal rate
1	6%	Higher than 50% of normal rate
1		Maintain both quantity and quality production by not: Decreasing the number of products while at

T-16

ENTRY SKILLS OF ND PROGRAMS

Number of Respondents	Percentage	Skill
		the same time decreasing the number of mistakes per unit of time
		Continue working without disruptions when:
1		Being bothered by fellow workers
1	6%	Other unusual occurrences happen
		Work independently alone at table without discontinuing work more frequently than:
1		0 times per day
1		9-15 times per day
		Work alone continuously without disruptions for:
		A 60-minute period with:
1		No contacts from supervisor
1		6-8 contacts from supervisor
		A 2-hour period with:
1		No contacts from supervisor
1		1-2 contacts from supervisor
1		9-15 contacts from supervisor
1	6%	Work in a group situation and increase his productivity: When supervisor asks his group to produce more than that produced for the previous period
		Increase his productivity in group or individual settings:
1		When supervisor threatens with pay cut
1		When supervisor offers bonus incentive
1		Initiate contact with fellow worker when he: Needs evaluation of work completed
		Not initiate contact inappropriately with:
		Coworkers (who are working) more frequently than:
1		0 times per day
1		3-5 times per day
		Supervisor more frequently than:
1	6%	0 times per day
1		15 or more times per day
		Stranger in shop more frequently than:
1		0 times per day
1		3-5 times per day

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ENTRY SKILLS OF ND PROGRAMS

Number of Respondents	Percentage	Skill
1		Does not deviate from the shop rules (set down by supervisor) more frequently than: 0 times per week
		Does not display or engage in:
		Minor disruptive behaviors (e.g., interruptions) more frequently than:
1	6%	0 times per week
1		9-15 times per week
		Major disruptive behaviors (e.g., tantrums) more frequently than:
1		0 times per week
1		3-5 times per week
1		6-8 times per week
1		Work at job station with: 0 disruptions (client stops working) per day
		Respond appropriately to social contacts initiated by others on at least:
1		Every occasion
1		1 out of every 15 occasions
		Have a good disposition and smile appropriately when contacted by:
		Supervisor on:
1	6%	Every occasion
1		1 out of every 5 occasions
1		1 out of every 15 occasions
		Fellow workers on:
1		Every occasion
1		1 out of every 5 occasions
1		1 out of every 15 occasions
		Adapt to new work setting with normal levels of:
		Productivity within a period of:
1		0-30 minutes
1		1-6 hours
1		1-5 days
		Contact with supervisor:
1	6%	0-30 minutes
1		1-5 days

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